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CIRCULAR OF INFORMATION

VOL. X.

MAY, 1910

NO. 4

RUSH MEDICAL COLLEGE

SIXTY-EIGHTH ANNUAL ANNOUNCEMENT



Published four times a year
February, March, April, May
THE UNIVERSITY OF CHICAGO
58th Street and Ellis Avenue
CHICAGO, ILL.

TABLE OF CONTENTS

History, Government, Affiliation, and Location	3
Calendar of Rush Medical College	5
Calendar of the University of Chicago	6
Board of Trustees of Rush Medical College	7
The Faculty of Rush Medical College	7
Fellows Appointed for 1910-11	16
Extra-mural Instructors	17
Officers of Administration	17
Administrative Board of Medical Affairs	18
Introductory Statement	19
General Regulations	22
The Curriculum	23
Requirements for Admission	24
Requirements for Graduation	29
General Information for Students Entering the Freshman and Sophomore Classes	30
Routine of Entrance	30
Fees for Matriculation, Tuition, Deposits, and Apparatus	31
Rooms, Board, and General Expenses	33
General Information for Students Entering the Junior and Senior Classes	34
The Quarter System	36
Definition of Major and Minor	36
Graduate Courses in Medicine for Physicians and Advanced Students	37
The Work of the Medical Course for the Freshman and Sophomore Years	37
Arrangement of Courses for Six Quarters	38
The Work of the Clinical Years	40
Fifth Year	40
Department of Anatomy	40
Department of Zoölogy	43
Department of Physiology	48
Department of Psychology	50
Department of Chemistry, Materia Medica, and Toxicology	51
Department of Therapeutics and Preventive Medicine	55
Department of Pathology and Bacteriology	56
Department of Medicine	59
Department of Surgery	64
Department of Obstetrics and Gynecology	67
Department of Laryngology and Otology	69
Department of Ophthalmology	71
Department of Skin and Venereal Diseases	73
General Lectures and Optional Courses	74
Laboratories, Equipment, and Libraries:	
The Hull Biological Laboratories	74
The Kent Chemical Laboratory	76
The Libraries	76
Buildings, Equipment, and Hospital Facilities at Rush Medical College	77
Fellowships, Hospital Internes, and Prizes	78
Occupants of Internships	80
Fellowships and Scholarships at the University of Chicago	81
Medical Societies	83
Alumni Association	84
Graduates for the Session of 1909-10	85
Matriculates for the Session of 1909-10	87
Summary	99



RUSH MEDICAL COLLEGE

IN AFFILIATION WITH

THE UNIVERSITY OF CHICAGO

HISTORY

Rush Medical College is one of the oldest institutions of learning in the Northwest, having been chartered by a special act of the Legislature of the state of Illinois in February, 1837. It was founded by the late Daniel Brainerd, who was its first president. The first course of lectures was delivered in the second story of the frame building on Clark Street, near Randolph, in 1843. In 1844 a college building was erected at the corner of Dearborn Avenue and Indiana Street, a structure which was remodeled and enlarged in 1855. In 1867 a larger building was erected on the site of the old one. This edifice was destroyed in the great fire of 1871 and for three years the College occupied a temporary amphitheater in the grounds of the Cook County Hospital, then located at Arnold and Eighteenth Streets. In 1875 the present Clinical Building was erected, and in 1893 a Laboratory Building, which greatly increased the facilities for practical instruction, was erected on the south side of Harrison Street, opposite the Clinical Building. The facilities for clinical instruction were largely increased in 1903 by the addition of the Senn Building, seven stories in height, adjoining the Clinical Building on the east. In 1887 the College became the medical department of Lake Forest University, retaining, however, its autonomy. This relation was dissolved by mutual consent in April, 1898, and in the same month the present affiliation with the University of Chicago was established. In 1883 the Presbyterian Hospital, adjoining the College, was established, and the building then erected for the hospital was subsequently enlarged by the addition of the Daniel A. Jones Memorial. In 1908 an affiliation was entered into with the Children's Memorial Hospital similar to that obtaining with the Presbyterian Hospital. Rush Medical College is one of the several institutions officially recognized by the Royal Colleges of Physicians and of Surgeons of London, England.

GOVERNMENT

The government of the College is vested in a "perpetual Board of Trustees" distinct from the teaching force of the College, which was constituted by a special act of the General Assembly of Illinois, in February, 1837, and of which the Governor of the state, the Lieutenant-Governor, and the Speaker of the House of Representatives are members *ex officio*. This board is responsible to the state for the careful management of the financial and educational interests of the College, and for the discipline of its students.

AFFILIATION

By the terms of affiliation with the University of Chicago, the Board of Trustees is composed of members not belonging to the teaching force of the College. This board assumes the financial management and appoints the Faculty, but delegates to the latter the control of the educational work subject to the rules of the University and the approval of the Trustees. The affiliation thus assures the maintenance of a higher order of instruction and a steady advance in modern educational methods. The University offers three Fellowships to graduates of the College, yielding the University fees and entitling the holders to the privileges of its biological laboratories. It provides for granting the degree of Bachelor of Science to students of the College who have had suitable preliminary education and who comply with the University regulations established for that degree. The courses of the first two years of the medical curriculum are offered at the University only.

LOCATION

The College is situated on West Harrison Street, between Hermitage Avenue and Wood Street, and can be reached by any of the trains of the Metropolitan Elevated Railway, the Marshfield Avenue station of which is three blocks east of the College; by the Ogden Avenue and Van Buren Street electric lines, which cross Wood Street two blocks north of the College; or by the Harrison Street electric car line, which runs on West Harrison Street.

The telephone number is West 113.

Address all correspondence to RUSH MEDICAL COLLEGE, Chicago, Illinois.

LOCATION OF THE UNIVERSITY OF CHICAGO

The University is situated on the Midway Plaisance between Cottage Grove and Madison Avenues, and can be reached by the Cottage Grove Avenue electric cars (from Wabash Avenue), by the South Side Elevated Railway, by the Illinois Central Railroad to South Park Station, or by the Sixty-third Street electric cars from the Englewood railway stations.

Mail and baggage service is provided at the Information Office in Cobb Lecture Hall.

The telephone number of the University is Midway 800.

CALENDAR OF RUSH MEDICAL COLLEGE

1910

June 20, Monday.—The Summer Quarter begins.
July 1, Friday.—The Fiscal Year of the College begins.
July 4, Monday.—A holiday.
July 28, Thursday.—Second Term, Summer Quarter begins.
Sept. 2, 3, Friday, Saturday.—Quarterly Examinations.
Sept. 3, Saturday.—Summer Quarter ends.
Sept. 4–Sept. 30.—Summer Recess.
Oct. 1, Saturday.—Autumn Quarter begins.
Nov. 10, Thursday.—Second Term, Autumn Quarter begins.
Nov. 24, Thursday.—Thanksgiving Day—a holiday.
Dec. 20, 21, 22, Tuesday, Wednesday, Thursday.—Quarterly Examinations.
Dec. 22, Thursday.—Autumn Quarter ends.
Dec. 23–31.—Quarterly Recess.

1911

Jan. 2, Monday.—Winter Quarter begins.
Feb. 9, Thursday.—Second Term, Winter Quarter begins.
Feb. 22, Wednesday.—Washington's Birthday—a holiday.
March 16, 17, 18, Thursday, Friday, Saturday.—Quarterly Examinations.
March 18, Saturday.—Winter Quarter ends.
March 19–26.—Quarterly Recess.
March 27, Monday.—Spring Quarter begins.
May 4, Thursday.—Second Term, Spring Quarter begins.
May 30, Tuesday.—Decoration Day—a holiday.
June 12, Monday.—Special Clinics for the Alumni Association.
June 13, Tuesday.—Special Clinics; Annual Business Meeting of the Alumni Association; Class-Day Exercises of the Graduating Class.
June 14, Wednesday.—3:00 P.M., Graduating Exercises; 6:00 P.M., Annual Reception and Dinner of the Faculty and Alumni.
June 15, 16, 17, Thursday, Friday, Saturday.—Quarterly Examinations.
June 17, Saturday.—Spring Quarter ends.

CALENDAR OF THE UNIVERSITY OF CHICAGO

1910

June 10	Friday	Junior Class Day
June 12	Sunday	Convocation Sunday
June 13	Monday	Class Day
June 14	Tuesday	{ Summer Convocation
		{ Alumni Day
June 15	Wednesday	{ Quarterly Examinations
June 16	Thursday	
June 17	Friday	
June 17	Friday	Spring Quarter ends
June 20	Monday	Summer Quarter begins
July 4	Monday	Independence Day: a holiday
July 27	Wednesday	{ Examinations for First Term of Summer Quarter
		{ First Term of Summer Quarter ends
July 28	Thursday	Second Term of Summer Quarter begins
Aug. 28	Sunday	Convocation Sunday
		{ Examinations for Second Term of Summer Quarter
Sept. 2	Friday	{ Autumn Convocation
		{ Second Term of Summer Quarter ends
Oct. 1	Saturday	Autumn Quarter begins
Nov. 24	Thursday	Thanksgiving Day: a holiday
Dec. 18	Sunday	Convocation Sunday
Dec. 20	Tuesday	Winter Convocation
Dec. 21	Wednesday	{ Quarterly Examinations
Dec. 22	Thursday	
Dec. 23	Friday	
Dec. 23	Friday	Autumn Quarter ends

1911

Jan. 2	Monday	{ Winter Quarter begins
		{ Matriculation and Registration of incoming students
Feb. 13	Monday	Lincoln's Birthday: a holiday
Feb. 22	Wednesday	Washington's Birthday: a holiday
Mar. 19	Sunday	Convocation Sunday
Mar. 21	Tuesday	Spring Convocation
Mar. 22	Wednesday	{ Quarterly Examinations
Mar. 23	Thursday	
Mar. 24	Friday	
Mar. 24	Friday	Winter Quarter ends
Mar. 24—April 3		Quarterly Recess
Apr. 3	Monday	{ Spring Quarter begins
		{ Matriculation and Registration of incoming students
May 30	Tuesday	Memorial Day: a holiday
June 9	Friday	Junior College Day
June 11	Sunday	Convocation Sunday
June 12	Monday	{ Class Day
		{ Summer Meeting of University Congregation
		{ Summer Convocation
June 13	Tuesday	{ Alumni Day
June 14	Wednesday	{ Quarterly Examinations
June 15	Thursday	
June 16	Friday	
June 16	Friday	Spring Quarter ends

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- FINDLEY JOHN, M.D., Assistant in Medicine, 100 State Street.
- JAMES RICHARD GREER, S.B., Assistant in Physiology, University of Chicago.
- PAUL GUSTAV HEINEMANN, PH.D., Assistant in Bacteriology, University of Chicago.
- JOHN PATRICK GRIMES, M.D., Assistant in Surgery, 806 N. Clark Street.
- HUGH JAMES POLKEY, M.D., Assistant in Surgery (Genito-urinary), 5108 Sheridan Road.
- GEORGE WARNER MOSHER, M.D., Assistant in Laryngology and Otology, 34 Washington Street.
- THEODORE DROSDOWITZ, M.D., Assistant in Surgery (Genito-urinary), 1656 W. Twelfth Street.
- GEORGE HALPERIN, M.D., Assistant in Medicine, 1933 W. Taylor Street.
- HENRY PATTERSON BAGLEY, M.D., Assistant in Laryngology and Otology, 736 W. Madison Street.
- ALBERT NELSON OYEN, M.D., Assistant in Laryngology and Otology, 2511 Humboldt Boulevard.
- WILLIAM ANDREW PLICE, M.D., Assistant in Laryngology and Otology, 761 S. California Avenue.
- THOMAS HARRIS BOUGHTON, S.M., M.D., Assistant in Medicine, 2958 West Madison Street.
- ALEXANDER WERELIUS, M.D., Assistant in Surgery, 821 West Fifty-ninth Street.
- THOMAS IRA MOTTER, M.D., Assistant in Surgery, Oak Park.
- WALTER WILE HAMBERGER, M.D., Assistant in Medicine, 100 State Street.
- LEON MAURICE BOWES, M.D., Assistant in Medicine (Pediatrics), 6031 Circle Avenue.
- ROBERT STANTON MCCAUGHEY, M.D., Assistant in Medicine, Hoopston, Ill.
- MARY BLOUNT, PH.D., Assistant in Zoölogy, University of Chicago.
- GEORGE LUDWIG ALT, M.D., Assistant in Clinical Surgery (Orthopedic), 1353 North Clark Street.
- JOHN ALFRED GRAHAM, M.D., Assistant in Clinical Surgery, 100 State Street.

CHARLES PATTON CLARK, M.D., Assistant in Pathology, Children's Memorial Hospital, 100 State Street.

JOSEPH CLARK STEPHENSON, S.B., Assistant in Zoölogy, University of Chicago.

ARNO BENEDICT LUCKHARDT, S.B., S.M., Assistant in Physiology, University of Chicago.

CHARLES GILCHRIST DARLING, M.D., Assistant in Ophthalmology, 103 State Street.

CHARLES PORTER SMALL, M.D., Assistant in Ophthalmology, 100 State Street.

FRED WILLIS KETTLESTRINGS, M.D., Assistant in Ophthalmology, 57 Washington Street.

EVARTS AMBROSE GRAHAM, M.D., Assistant in Surgery, 1801 W. Monroe Street.

VERNON CYRENIUS DAVID, M.D., Assistant in Surgery, 815 Belden Avenue.

EDWARD JAMES LEWIS, M.D., Assistant in Surgery, 5501 Prairie Avenue.

GRACE MEIGS, M.D., Assistant in Medicine (Pediatrics).

EDWARD WHITNEY BODMAN, M.D., Assistant in Medicine (Nervous and Mental Diseases), 125 E. Chicago Avenue.

ARTHUR FREDERIC BEIFELD, M.D., Assistant in Medicine, Rush Medical College.

DAVID C. STRAUS, M.D., Assistant in Medicine, 103 State Street.

FREDERICK OLAF FRIEDERICKSON, M.D., Assistant in Medicine, 925 Center Street.

EDWARD JAMES STRICK, S.B., Assistant in Anatomy, University of Chicago.

MAURICE PINCOFFS, S.B., Assistant in Anatomy, University of Chicago.

RUSSELL MORSE WILDER, S.B., Assistant in Anatomy, University of Chicago.

HERBERT O. LUSSKY, S.B., Assistant in Physiology, University of Chicago.

FRED CONRAD KOCH, M.D., Assistant in Physiological Chemistry, University of Chicago.

HERMAN SPOEHR, PH.D., Assistant in Chemistry, University of Chicago.

ETHEL MARY TERRY, S.B., Assistant in Chemistry, University of Chicago.

LEROY SAMUEL MATHERBY, S.B., Assistant in Chemistry, University of Chicago.

HARRIET F. HOLMES, A.B., Special Assistant in Pathological Technique, University of Chicago.

EARL BALL, Mechanical Assistant in Physiology, University of Chicago.

ERNEST WILLIAM POTTHOFF, M.D., Clinical Assistant in Dermatology, Oak Park, Ill.

ARTHUR NORTON MACKEY, M.D., Clinical Assistant in Dermatology, 3420 Sheffield Avenue.

GUY CARSON KINNAMAN, M.D., Clinical Assistant in Skin and Venereal Diseases, 4248 Evanston Avenue.

MAX MALKIN, M.D., Clinical Assistant in Medicine (Pediatrics), 1259 W. Twelfth Street.

ERNEST CLEVERDON, M.D., Clinical Assistant in Medicine (Pediatrics), 114 Central Avenue, Austin.

GUSTAVE LEONARD KAUFFMAN, M.D., Clinical Assistant in Medicine (Pediatrics), 156 Center Street.

CLARENCE L. HEATON, M.D., Clinical Assistant in Medicine, 2738 Pine Grove Avenue.

- DANIEL BERNARD HAYDEN, A.M., M.D., Clinical Assistant in Laryngology and Otology, 100 State Street.
- GUSTAVE H. MUNDT, M.D., Clinical Assistant in Laryngology and Otology, 34 Washington Street.
- WILLIAM GEORGE ALEXANDER, M.D., Clinical Assistant in Laryngology and Otology, 3506 West Harrison Street.
- WILLIAM THOMAS WINTERS, M.D., Clinical Assistant in Laryngology and Otology, 738 West Madison Street.
- ALFRED NICHOLAS MURRAY, M.D., Clinical Assistant in Laryngology and Otology, 100 State Street.
- JAMES WILLIAM WILSON, M.D., Clinical Assistant in Laryngology and Otology, 6101 South Halsted Street.
- WILLIAM GEORGE REEDER, M.D., Clinical Assistant in Ophthalmology, 34 Washington Street.
- JULIUS C. OSHER, M.D., Clinical Assistant in Ophthalmology, 55 State Street.
- WILLIAM HAMILTON LAMBERT, M.D., Clinical Assistant in Ophthalmology, 1948 Washington Boulevard.
- HELEN FRANCES CRAIG, A.B., S.B., Laboratory Assistant in Pathology, University of Chicago.
- JAMES HERBERT MITCHELL, S.B., Research Assistant in Chemical Pathology, University of Chicago.
- JOSEPH JOHNSTON SHERRILL, M.D., Clinical Assistant in Surgery (Genito-urinary), 161 State Street.
- EDWARD VON TOLL, M.D., Clinical Assistant in Surgery (Genito-urinary), 915 Belmont Avenue.
- MAUD SLYE, A.B., Laboratory Assistant in Zoölogy, University of Chicago.
- PAUL STILWELL MCKIBBEN, A.B., Technical Assistant in Anatomy, University of Chicago.
- HOMER KING NICOLL, M.D., *Dane Billings* Fellow in Medicine, Rush Medical College.
- WILLIAM TALMADGE HUGHES, M.D., *Nicholas Senn* Fellow in Surgery, Rush Medical College.
- FLOYD BURKE RILEY, M.D., Fellow in Pathology, Ogden Avenue and Twelfth Street.

FELLOWS APPOINTED FOR 1910-11

(IN THE MEDICAL DEPARTMENTS, THE UNIVERSITY OF CHICAGO)

- GEORGE WILLIAM BARTELMEZ, S.B., Zoölogy.
- EDMUND VINCENT COWDRY, A.B., Anatomy.
- HARRY ELLSWORTH EWING, A.B., A.M., Zoölogy.
- JOHN WILLIAM EDWARD GLASFIELD, S.B., Chemistry.
- GEORGE LESTER KITE, S.B., Zoölogy.
- JOHN JOSIAH MOORE, S.B., Pathology.
- ROSWELL TALMAGE PETTIT, S.B., Pathology.
- PAUL DAVID POTTER, A.B., Chemistry.
- ERNEST LYMAN SCOTT, S.B., Physiology

SHIRO TASHIRO, S.B., Physiological Chemistry.
ARTHUR LAWRIE TATUM, S.B., Physiology.
CARL CHRISTMAN TODD, S.B., Chemistry.
HARLAN LEE TRUMBULL, A.B., Chemistry.
LEROY SAMUEL WEATHERSBY, A.B., Chemistry.
FRANKLIN LORENZO WEST, S.B., Chemistry.
STANLEY DAVIS WILSON, A.B., Chemistry.

EXTRA-MURAL INSTRUCTORS
AT COOK COUNTY HOSPITAL

MALCOLM LASELLE HARRIS, M.D., Assistant Clinical Professor (*extra-mural*) of Surgery.

AT WEST SIDE HEBREW DISPENSARY

ROSA ENGLEMAN, A.B., M.D., Assistant Clinical Professor (*extra-mural*) of Pediatrics.

LOUIS A. GREENSFELDER, M.D., Assistant Clinical Professor (*extra-mural*) of Surgery.

ALBERT W. SCHRAM, M.D., Clinical Instructor (*extra-mural*) in Medicine.

MAY MICHAEL, M.D., Clinical Assistant (*extra-mural*) in Diseases of Children.

LOUIS ELEVER GORDON, M.D., Clinical Assistant (*extra-mural*) in Diseases of the Throat, Nose, and Ear.

FRANK B. HARMISON, M.D., Clinical Assistant (*extra-mural*) in Medicine.

WILLIAM H. RUBOVITZ, M.D., Clinical Assistant (*extra-mural*) in Surgery.

GUY WATTS WAGNER, M.D., Clinical Assistant (*extra-mural*) in Surgery.

AT CHICAGO ISOLATION HOSPITAL

HEMAN SPALDING, M.D., Associate Clinical Professor (*extra-mural*) of Medicine.

AT ST. LUKE'S HOSPITAL

LEWIS L. MACARTHUR, M.D., Assistant Clinical Professor (*extra-mural*) of Surgery.

AT ST. ANTHONY'S HOSPITAL

FRED J. E. EHRLMANN, M.D., Clinical Instructor (*extra-mural*) in Medicine.

AT THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY

NORVAL HARVEY PIERCE, M.D., Assistant Clinical Professor (*extra-mural*) of Otology.

OFFICERS OF ADMINISTRATION

AT THE UNIVERSITY OF CHICAGO

HARRY PRATT JUDSON, President of the University, Haskell Museum, First Floor, Room 10.

ALONZO KETCHAM PARKER, University Recorder, Cobb Lecture Hall, First Floor, Room 2A3.

CHARLES RICHMOND HENDERSON, University Chaplain, Cobb Lecture Hall, First Floor, Room 1.

THOMAS WAKEFIELD GOODSPEED, University Registrar, Press Building, First Floor, Room 1.
 DAVID ALLAN ROBERTSON, Secretary to the President, Haskell Museum, First Floor, Room 10.
 JOHN MILTON DODSON, Dean of Medical Students, Physiology Building, First Floor, Room 13.
 HARRY GIDEON WELLS, Dean in Medical Work, Physiology Building, First Floor, Room 13.
 MARION TALBOT, Dean of Women, Cobb Lecture Hall, First Floor, Room 2A1.

AT RUSH MEDICAL COLLEGE

FRANK BILLINGS, Dean of the Faculty.
 JOHN MILTON DODSON, Dean of Students.
 JAMES NEVINS HYDE, Secretary of the Faculty.
 EPHRAIM FLETCHER INGALS, Comptroller.
 JAMES H. HARPER, Registrar.

THE ADMINISTRATIVE BOARD OF MEDICAL AFFAIRS

AT THE UNIVERSITY OF CHICAGO

THE PRESIDENT, *Chairman*

THE RECORDER, <i>ex officio</i> .	DEAN JOHN MILTON DODSON, <i>ex officio</i> .
DEAN MARION TALBOT, <i>ex officio</i>	DEAN HARRY GIDEON WELLS, <i>ex officio</i> .

PROFESSOR CHARLES OTIS WHITMAN.
 PROFESSOR ALBERT ABRAHAM MICHELSON.
 PROFESSOR SAMUEL WENDELL WILLISTON.
 PROFESSOR FRANK BILLINGS.
 PROFESSOR LUDVIG HEKTOEN.
 PROFESSOR JOHN ULRIC NEF.
 PROFESSORIAL LECTURER WALTER STANLEY HAINES.
 PROFESSORIAL LECTURER EPHRAIM FLETCHER INGALS.
 PROFESSORIAL LECTURER JAMES NEVINS HYDE.
 PROFESSORIAL LECTURER ARTHUR DEAN BEVAN.
 PROFESSORIAL LECTURER JOHN CLARENCE WEBSTER.
 PROFESSOR JULIUS STIEGLITZ.
 PROFESSOR ALBERT PRESCOTT MATHEWS.
 PROFESSOR EDWIN OAKES JORDAN.
 PROFESSOR JAMES ROWLAND ANGELL.
 PROFESSOR FRANK RATTRAY LILLIE.
 PROFESSOR ROBERT RUSSELL BENSLEY.
 PROFESSOR CHARLES JUDSON HERRICK.
 ASSOCIATE PROFESSOR ROBERT ANDREWS MILLIKAN.

ASSOCIATE PROFESSOR HERBERT NEWBY MCCOY.
ASSOCIATE PROFESSOR WALDEMAR KOCH.
ASSOCIATE PROFESSOR JOSEPH EDWARD RAYCROFT.
ASSOCIATE PROFESSOR CHARLES MANNING CHILD.
ASSOCIATE PROFESSOR ANTON JULIUS CARLSON.
ASSISTANT PROFESSOR DAVID JUDSON LINGLE.
ASSISTANT PROFESSOR NORMAN MACLEOD HARRIS.
ASSISTANT PROFESSOR SAMUEL ALEXANDER MATTHEWS.
ASSISTANT PROFESSOR PRESTON KYES.
ASSISTANT PROFESSOR WILLIAM LAWRENCE TOWER.
ASSISTANT PROFESSOR BASIL COLEMAN HYATT HARVEY.
DR. THOR ROTHSTEIN.
DR. GEORGE ELMER SHAMBAUGH.
DR. E. V. L. BROWN.
DR. ALBERT WOELFEL.
DR. FRANK HENRY PIKE.
DR. EDWIN GARVEY KIRK.
DR. ELIZABETH HOPKINS DUNN.
DR. REUBEN MYRON STRONG.
DR. OSCAR RIDDLE.
DR. VICTOR ERNEST SHELFORD.
DR. FRANK CHRISTIAN BECHT.
MR. JAMES PATTERSON.

INTRODUCTORY STATEMENT

Students entering with conditions in any branch, or students seeking admission to advanced standing from another medical school, are strongly advised to enter for the Summer Quarter, beginning June 20.¹ The student should, if possible, commence the medical curriculum with the Autumn Quarter in order to pursue the medical courses in proper sequence.

Changes in rules and regulations.—The right is reserved by the faculty to make changes at any time in requirements for admission, curriculum fees, or any rules and regulations.

The curriculum.—The curriculum of Rush Medical College, extending over four or five annual sessions of nine months (three quarters) each, embraces (1) two years of work in the fundamental branches of Anatomy, both gross and microscopic, Neurology, Embryology, Physiology, Physiological Chemistry, Pharmacology, Bacteriology and Pathology; and (2) two or three years in the clinical branches of Materia Medica, Therapeutics, Clinical Pathology, Medicine, Surgery, Obstetrics, and the special lines of practice.

¹ It is greatly to the advantage of every student to begin his medical work without conditions in any of the branches required for admission, especially Physics, Chemistry, and Biology. In these and all other departments of the University of Chicago courses are given in the Summer Quarter by which deficiencies can be made up. For students entering from other medical schools, special review courses are offered in Anatomy, Physiology, and the other fundamental medical sciences, and satisfactory work in these courses will be accepted in lieu of examination on the work of the first two years.

Fundamental branches at the University of Chicago.—The courses in the fundamental branches are offered only at the University of Chicago, in the spacious Hull Biological Laboratories, by instructors whose time is wholly devoted to teaching and investigation in their respective lines. It is believed that the student pursuing these studies in the atmosphere of an institution devoted to scientific work cannot but gain a broader and more thorough conception of these sciences. Such a training will not only afford a better preparation for the clinical courses of the Medical College and for the practice of medicine and surgery, but will also enable the student to follow more easily in paths along which medical advances are being made, and to apply these new discoveries in his daily work.

The clinical branches are taught at Rush Medical College, with its Central Free Dispensary, at the Presbyterian Hospital, the Children's Memorial Hospital, the Cook County Hospital, the West Side Hebrew Dispensary, and other hospitals in the vicinity of the College.

Fifth year.—Beginning with the year 1905-6, a *fifth year* was added to the curriculum which until further announcement, is optional.¹ The work of this year will be that of

A. Graduate work in one of the departments of the College, either as a graduate student or as a Fellow; or

B. An internship in a hospital under the following conditions:² (1) Each student taking such work will be under the constant supervision of the Faculty, by whom the hospital in which the internship is taken must be approved. (2) The student must present evidence of thorough clinical work, and an acceptable thesis, involving creditable original work. (3) He may be required to pass a special examination at the end of the year.

On the successful completion of this fifth year he will receive the degree of Doctor of Medicine, *cum laude*.

The requirements for admission comprise (a) the completion of a four-year high-school course, and, in addition, (b) two years of work in a recognized college or university. This work must have included a thorough course in College Chemistry—inorganic, organic, and qualitative analysis; a course in College Physics with laboratory work; a course in general Biology, with laboratory work; and a reading knowledge of German or of French. A student may be admitted with conditions in not more than four majors of College work.

It is the firm conviction of the Faculty that, under the conditions now prevailing in the practice of medicine, and which are rapidly becoming more exacting, no person can afford to enter upon the study of medicine with a preparation less thorough and comprehensive than that demanded by these minimum requirements. The Medical Examining Boards in some of the states require this amount of pre-medical work as a prerequisite for licensure. *Every student should complete a four-year college course including the physics, chemistry, and biology above men-*

¹ As soon as this fifth year in an internship can be made a prerequisite for the degree of M.D., under the rulings of the Medical Examining Boards of the several states, it is the purpose of the Faculty to extend the required curriculum to five years. *The increasing demand for internes has made it possible for every graduate of Rush Medical College in the last four years, to secure such in a first-class hospital.*

² A detailed statement of the regulations governing this work is furnished to each student who registers for the fifth year.

tioned before entering the Medical School, if his age and other circumstances make it possible for him so to do. This additional college work should secure for him a greater breadth of culture and a catholicity of interest which will make him a man of larger power, influence, and usefulness in the community.

Admission to advanced standing.—Students or graduates of other medical colleges whose work is recognized by this College, may be admitted to advanced standing. They are required to present credentials showing that their preparatory education was fully equivalent to that demanded of the students of Rush Medical College; they must have spent an amount of time, estimated in months, and have completed work in the medical branches equal to that demanded of students in this College. Any deficiencies may be made up by attendance upon extra quarters or, in small degree, by extra work (see p. 29).

Requirements for graduation.—The minimum requirements for graduation comprise attendance upon four sessions of three quarters (nine months) each, the completion of a prescribed amount of work, and the passing of certain examinations both written and practical (see pp. 29, 30).

The combined course for the degrees of M.D., and S.B., A.B., or Ph.B.—Attention is called to the fact that courses are offered in the University of Chicago, in the Departments of Art, Literature, and Science, in all the branches of a liberal education. The work of the Senior College (Junior and Senior years of the University) being almost wholly elective, a student seeking a Bachelor's degree may elect courses in Anatomy, Physiology, etc., and thus procure such a degree, together with that of M.D., in from six to six and one-half years. This plan admits of great elasticity in adjustment to the needs of the individual students, as one may spend anywhere from six to twelve quarters or more in preparatory college work before taking up the study of the medical branches. Every student is urged to make his preparatory work as extensive and thorough as his age and other circumstances will permit (see p. 28).

Higher degrees.—A Master's degree or the degree of Ph.D. may be secured by special work in the medical sciences, and additional residence, in conformity with the regulations of the University covering such degrees.

The elective system.—The work of the medical curriculum, is in part, elective, the choice of the student for each quarter being subject to certain restrictions (see p. 40).

The quarter system.—The College is in session during four quarters each year, and a student may enter at the beginning of any quarter. *Students beginning their medical work, however, are advised to commence with the Autumn Quarter* (see p. 36).

The tuition fee is sixty dollars per quarter, or one hundred and eighty dollars for each of the four annual sessions, this tuition including all laboratory fees (see pp. 33-35).

Student self-help.—Many opportunities are afforded in Chicago for students to earn a portion (and in exceptional cases the whole) of their expenses. A booklet giving fuller information in regard to this matter will be mailed on application.

GENERAL REGULATIONS

Students are admitted to the Medical Courses as medical students, and as (1) *undergraduate students* (candidates for a Bachelor's degree, S.B., A.B., or Ph.B.). (2) *Graduates* of the University of Chicago, or of other universities or colleges of good standing, are admitted to the medical course as graduate students; they are allowed all the privileges of the members of the Graduate Schools of the University. (3) In addition to students in regular standing, provision is made for the admission to the University of undergraduate students not seeking degrees. Such students are known as *unclassified students*. They may register for medical subjects, but they are not candidates for the M.D. degree.

1. *Admission*.—(a) Each student must present to the faculty certificates of good moral character, signed by at least two physicians of good standing in the state in which the applicant last resided. Blank certificates for this purpose may be had on application to the Dean. (b) He must be able to comply with the requirements for admission to the medical courses of the University of Chicago (see p. 24). In brief, they consist of a four-year high-school course plus two years of college work, which must have included College Physics, General Chemistry, and Biology, and a reading knowledge of German or French. (c) He will matriculate and register as a student of Rush Medical College as well as of the University at the beginning of his medical course. Such matriculation and registration is accomplished at the University without extra fee.

2. *Medical courses as undergraduate work in the course for a Bachelor's degree*.—(a) The first two years' work in Medicine may be taken as the third and fourth years of the Bachelor of Science course, or, in very large part, of the course for the degrees of A.B. or Ph.B. (For requirements, see p. 28.) Students who wish to enter college and prepare to take the medical work as part of their Baccalaureate course may enter at the beginning of the Junior College Course (first college year or at any further stage of advancement).¹ (b) Each student must comply with 1 a. (c) In order to comply with the rules of the Medical Examining Boards of several states, a student will matriculate with the Dean of Rush Medical College (at the University) at the beginning of his work in Medicine. He will consult with the Dean of Medical Students each quarter in regard to his work, and take a card of advice to the Dean of the Senior Colleges, with whom the student will continue to register until he receives a Bachelor's degree. *Credit will not be given toward the M.D. degree unless the student complies with this regulation.*

3. *Admission as a graduate student*.—(a) Admission to the Graduate Schools of the University is granted (1) to those who have been graduated from the Colleges of the University of Chicago with the degree A.B., Ph.B., or S.B.; (2) to those holding Baccalaureate degrees from other institutions of good standing. (b) Application for admission in the case of students not graduates of the University should be accompanied by testimonials as to character and scholarship.

¹ A student desiring to enter the course as a candidate for the S.B., A.B., or Ph.B. degree is requested to enter into correspondence upon the subject with the Dean of the Senior Colleges of the University of Chicago, Chicago, Ill. (see also p. 28 of this Circular).

Such testimonials should take the form of diplomas, written or printed theses, or satisfactory evidence in some other form of the student's fitness for admission. (c) A graduate student taking the medical course must comply with 1a and 1c. He will consult each quarter with the Dean of Medical Students, and will take a card of advice from him to the Dean of the Graduate School, with whom the student will register. *Credit will not be given toward the M.D. degree unless the student complies with this regulation.* (d) Advanced standing in the medical course is granted for work done in other medical schools according to the conditions stated on p. 29 of this Circular.

4. *Unclassified students.*—(a) Candidates for admission to the University as *unclassified students* (1) must be at least twenty-one years of age; (2) must show good reason for not entering upon a regular course; (3) *must take the entrance examinations of the departments in which they wish to work*; (4) must satisfy the Dean and the particular instructors under whom they desire to study that they are prepared to carry the courses elected.

Unclassified students conform to all regulations of the University, and having been admitted, their continuance depends on the maintenance of a satisfactory standing.

NOTE.—Students entering the University for the first time should make it a point to complete all arrangements for entrance, either by correspondence or in person *at least two days before the opening of the quarter.*

THE CURRICULUM

1. *The fundamental medical branches.*—The course for the first two years' work in Medicine consists mainly of instruction in the fundamental medical sciences. It includes the following courses:

a) *Chemistry*, The Chemistry of Medicinal Drugs, $\frac{1}{2}$ major (25).

b) *Anatomy*, $7\frac{1}{2}$ majors as follows: Human Anatomy (Dissecting), 4 majors (1, 2, 3, 4, 5); Splanchnology, Histology, and Cytology, 1 major (10); Embryology, 1 major (Zoölogy 20, or 21); Neurology, 1 major (Anatomy 17).

c) *Physiology*, $6\frac{1}{2}$ majors as follows: Physiology, 3 majors (12, 13, 14); Physiological Chemistry, 2 majors (19, 20); Pharmacology, $1\frac{1}{2}$ majors (21).

d) *Pathology*, $3\frac{1}{2}$ majors, as follows: Bacteriology, $1\frac{1}{2}$ majors (21); Pathology, 2 majors (1A, 1B).

A total of 18 majors.* All of this work is given at the University of Chicago.

2. *The clinical medical branches.*—The work of the last two, or clinical, years comprises the following branches: (a) *Materia Medica*, Therapeutics, Medical Jurisprudence, and Preventive Medicine, at least 2 majors; (b) Pathology, at least 1 major; (c) Medicine, at least $5\frac{1}{2}$ majors; (d) Surgery, at least $5\frac{1}{2}$ majors, 1 major of which must be in Surgical Anatomy; (e) Obstetrics and Gynecology, at least 3 majors; (f) Laryngology and Otology, at least 1.2 majors; (g) Ophthalmology, at least .8 major; (h) Skin and Venereal Diseases, at least 1 major; (i) Additional work in any branch, or branches, of the student's choice, at least 2 majors; a total of 22 majors.

* For definition of major see p. 36.

Advice by the head of each department as to the recommended sequence of courses is contained in a Circular of Information issued to the students at the beginning of the Autumn Quarter.

REQUIREMENTS FOR ADMISSION

These comprise as a minimum (a) the successful completion of a four-year high-school or academy course, qualifying the student to enter the Junior College (Freshman class), of the University of Chicago, and (b) 18 majors (=6 quarters) of the usual college course, or a full equivalent therefor.

A. HIGH-SCHOOL WORK REQUIRED FOR ADMISSION TO THE JUNIOR COLLEGE (FRESHMAN CLASS), UNIVERSITY OF CHICAGO¹

(1) The high-school work imperatively demanded of every student comprises 3 units² of English (Rhetoric, Composition, and Literature); 3 units of language other than English; 2½ units of Mathematics (Algebra, through Quadratics and Plane Geometry); and 6½ units in other high-school branches. (2) Students intending to study medicine are strongly advised to take in the high school 2 units of Latin (Elementary Grammar and Caesar), 3 units of German or French, 1 unit each of Chemistry and Physics—with Laboratory work. If these branches have not been taken in the high school, they must be taken as part of the college work required for admission (see paragraph B.). One-half unit of Trigonometry is strongly advised, and is required for the Bachelor's degree. A diploma is not accepted as sufficient evidence of such preparation, but specific statement is required as to the amount and character of the work in each branch of study. Blanks are furnished by the University for the presentation of such credits, and will be mailed on application to the Dean of Medical Students.

B. COLLEGE WORK REQUIRED FOR ADMISSION TO THE MEDICAL COURSE

Eighteen majors (two years) of college work must have been taken, and this work must have included the following branches: (1) Chemistry—(a) 3 majors¹ of Inorganic Chemistry (or 2 majors, if 1 unit of high-school Chemistry with laboratory work has been taken). (b) 1 major of Organic Chemistry. (c) 1 major of Qualitative Analysis. This work in Chemistry corresponds to the courses Chemistry 1, 2, 3, 4, and 6 (see pages 52 to 54). The student is advised to take Quantitative Analysis, but this is not required.

(2) Physics—4 majors of Physics (or 2 majors if 1 unit of high-school Physics has been taken). This work in Physics corresponds to the courses Physics 1, 2, 3, and 4 (see page 51).

(3) 1 major of General Biology.

(4) A reading knowledge of German or of French (ordinarily 2 units of high-school or 3 majors of College work).

(5) 3 majors of Latin (Caesar and Elementary Grammar) unless 2 units have been completed in high school.

¹ A complete and more detailed statement of the requirements and the ground covered by each subject will be sent to any principal, teacher, or student on application to the Dean of Medical Students.

² A unit corresponds to a daily recitation throughout the school year of thirty-six weeks.

ACCEPTANCE OF CREDIT FOR HIGH-SCHOOL WORK

Such credits are accepted without examination from affiliated or co-operating schools. Students from schools not recognized by the University must submit to examination in the branches required.

2. *Times and places of examinations.*—Examinations for admission are held three times a year at the University. They are also given, at the request of students or teachers, at any of the regular dates, in cities outside of Chicago in which satisfactory arrangements can be made. Applications for such examinations should be made to the Dean of Affiliations at least thirty days in advance. Examinations for admission at other than the regular dates may be given only at the University, and that by special permission of the Dean, and upon the payment of a fee of not less than \$10 or more than \$15 (the amount being dependent on the number of examinations taken).

Candidates for admission are not required to take all the examinations at one time.

3. *Fee for examination for admission.*—A fee of \$5 is charged for examination for admission. This is paid when the first examination is taken. The same fee is paid by students entering upon certificate from co-operating schools.

4. *Students from the University High School and the affiliated and co-operating schools* are admitted to the University upon presentation of a subject certificate covering each of the subjects stated above as required for admission.

5. *Affiliated schools.*—The following is the list of affiliated schools:

AFFILIATED AND CO-OPERATING SCHOOLS

The following is a list of affiliated schools:

ILLINOIS—

Bradley Polytechnic Institute, Peoria; dean, Theodore C. Burgess. Frances Shimer Academy, Mount Carroll; dean, William P. McKee. The Harvard School, Chicago; dean, John J. Schobinger. The Kenwood Institute, Chicago; dean, Geneva Misener.

INDIANA—

Culver Military Academy Culver; dean, Colonel A. F. Fleet.

WISCONSIN—

Wayland Academy, Beaver Dam; dean, Edwin P. Brown.

The following is a list of the co-operating secondary schools:

ALABAMA—

Birmingham High School; Montgomery Girls' High School

ARKANSAS—

Fort Smith High School; Hot Springs High School; Little Rock High School.

CALIFORNIA—

Los Angeles High School; Pasadena High School; San Francisco: Girls' High School, Lowell High School.

COLORADO—

Colorado Springs High School; Denver: District No. 1 High School, North Side High School, West Side High School; Leadville High School; Pueblo: Centennial High School, Central High School.

GEORGIA—

Atlanta: Girls High School

ILLINOIS—

Alton High School; Atlanta High School; Aurora: East Side High School, West Side High School; Beardstown High School; Belvidere: Main Street High School, South High School; Bloomington High School; Blue Island High School; Cairo High School; Charleston High School; Chicago: Austin High School, Calumet High School, Crane High School, Englewood High School, Frances W. Parker School, George William Curtis High School, Hyde Park High School, Jefferson High School, John Marshall High School, Joseph Medill High School, Lake High School, Lake View High School, Murray F. Tuley High School, Robert A. Waller High School, South Chicago High School, St. James High School, Starrett School for Girls, The University School for Boys, Wendell Phillips High School, William McKinley High School; Chicago Heights (Bloom Township) High School; Clinton High School; Clyde High School; Danville High School; Decatur High School; DeKalb High School; Des Plaines High School; Dixon; North Side High School, South Side High School; DuQuoin High School; East St. Louis High School; Elgin High School, Elgin Academy; Evanston High School; Freeport High School; Geneseo High School; Harvard High School; Harvey High School; Havana High School; Highland Park (Deerfield Township) High School; Hinsdale High School; Jacksonville: High School, Illinois Woman's College; Joliet High School; Kankakee High School; Kenilworth (New Trier Township) High School; Kewanee High School; LaGrange (Lyons Township) High School; Lake Forest: Ferry Hall Seminary, Lake Forest School for Boys; LaSalle High School; Lincoln High School; Macomb High School; Mattoon High School; Mendota: West Side High School; Moline High School; Monmouth High School; Morgan Park: High School, Morgan Park Academy; Morris High School; Morrison High School; Normal High School; Oak Park High School; Ottawa High School; Pekin High School; Peoria High School; Polo High School; Pontiac High School; Princeton High School; Quincy High School; Riverside High School; Rockford High School; Rock Island High School; Springfield High School; St. Charles High School; Sterling High School; Streator High School; Sycamore High School; Tuscola High School; Waukegan High School; West Chicago High School; Wheaton High School.

INDIANA—

Anderson High School; Attica High School; Auburn High School; Crawfordsville High School; East Chicago High School; Elkhart High School; Evansville High School; Frankfort High School; Franklin High School; Fort Wayne High School; Goshen High School; Hammond High School; Hartford City High School; Huntington High School; Indianapolis: Shortridge High School, Manual Training High School, Tudor Hall; Lafayette High School; Laporte High School; Lebanon High School; Ligonier High School; Logansport High School; Marion High School; Michigan City High School; Muncie High School; New Albany High School; Plymouth High School; Rensselaer High School; Richmond High School; Rushville High School; Salem High School; Shelbyville High School; South Bend High School; Terre Haute High School; Union City High School; Valparaiso High School; Vincennes High School; Wabash High School; Warsaw: High School, Winona Park School; Whiting High School.

IOWA—

Boone High School; Burlington High School; Cedar Rapids High School; Clinton High School; Council Bluffs High School; Creston High School; Davenport: High School, Saint Katherine Hall; Des Moines: East Side High School, North Side High School, West Side High School; Dubuque High School; Fort Dodge High School; Grinnell High School; Independence High School; Iowa City High School; Keokuk High School; Marengo High School; Marshalltown High School; Mason City High School; Newton High School; Oskaloosa High School; Ottumwa High School; Red Oak High School; Sioux City High School; Vinton High School; Washington High School; Waterloo: East High School; West Liberty High School

KANSAS—

Emporia High School; Fort Scott High School; Hiawatha High School; Iola High School; Kansas City High School; Lawrence High School; Leavenworth High School; Topeka High School; Wichita High School; Winfield High School

KENTUCKY—

Louisville: Girls' High School, Boys' High School, Manual Training High School, Semple Collegiate and Moore Primary School, Paducah High School

MAINE—

Waterville: Coburn Classical Institute.

MICHIGAN—

Battle Creek High School; Bay City: Eastern High School, Western High School; Benton Harbor High School; Calumet High School; Detroit: Central High School, Eastern High School, Western High

School, The Detroit Home and Day School; Escanaba High School; Flint High School; Grand Rapids: Central High School; Ishpeming High School; Jackson High School; Kalamazoo High School; Lake Linden High School; Marquette High School; Menominee High School; Muskegon: Manual Training High School; Orchard Lake: Michigan Military Academy; Saginaw: East Side High School; West Side High School; St. Joseph High School.

MINNESOTA—

Duluth High School; Faribault: St. Mary's Hall, The Shattuck School; Minneapolis: Central High School, East Side High School, Owatonna: Pillsbury Academy; St. Paul: Central High School, Cleveland High School, Humboldt High School, College of St. Katherine; Winona High School.

MISSOURI—

Carrollton High School; Chillicothe High School; Kansas City: Central High School, Manual Training High School, Westport High School; Macon: Bles Military Academy; St. Joseph High School; St. Louis: Central High School, William McKinley High School, Yeatman High School, Smith Academy, Mary Institute

MONTANA—

Helena High School

NEBRASKA—

Lincoln High School; Omaha: High School, Brownell Hal

NEW YORK—

Buffalo: Masten Park High School.

OHIO—

Akron High School; Canton High School; Cleveland: Central High School, East Side High School, Glenville High School, Lincoln High School, South High School, The University School, West High School; Columbus: Central High School East High School, North High School; Dayton: Steele High School; East Cleveland: Shaw High School; Elyria High School; Findlay High School; Granville: Doane Academy; Lima High School; Middletown High School; Painesville High School; Sandusky High School; Toledo: Central High School; Youngstown High School.

OKLAHOMA—

Oklahoma City High School; Tonkawa: Oklahoma University Preparatory School.

PENNSYLVANIA—

Harrisburg High School; Pittsburg: Central High School; Westtown: Westtown Boarding School.

SOUTH DAKOTA—

Lead High School.

TENNESSEE—

Bell Buckle: Webb School; Lebanon: Castle Heights School; Memphis: The University School.

TEXAS—

Austin High School; Dallas High School; Denison High School; El Paso High School; Fort Worth High School; Galveston High School; Houston High School; San Antonio High School; Sherman High School; Waco High School

WASHINGTON—

Seattle High School.

WISCONSIN—

Appleton High School; Beloit High School; Black River Falls High School; Delafield: St. John Military Academy; Eau Claire High School; Elkhorn High School; Fond du Lac High School; Grand Rapids High School; Hillside Home School; Janesville High School; Kenosha High School; La Crosse High School; Lake Geneva High School; Manitowoc: North High School; Marshfield High School; Milwaukee: East Division High School, South Division High School, West Division High School, Milwaukee-Downer College; Neilsville High School; Oshkosh High School; Racine High School; Sheboygan High School; Sturgeon Bay High School; Superior: Blaine High School, Nelson High School Dewey High School; Waukesha: High School, Carroll College Academy; Waupaca High School.

7. *Credits from other than affiliated or co-operating schools.*—Credits for work done at high schools or academies not in the list given above, will be accepted provisionally, provided the principal of the school will certify that the applicant has done good work in the school, and that he is willing the student's credits should be accepted by the University of Chicago as a test of the character of the work done

in that school. *By provisional acceptance of credit it is meant that such acceptance will be withdrawn if the student's work in the University during his first two quarters of residence fails to show that his preparation was adequate in the branches for which he sought credit.*

Every student who is considering the question of entering upon the study of medicine is requested to write to the Dean of Medical Students for a blank application for admission, to fill out the same carefully, giving full details of his high-school and college work, and to mail the application, thus completed, to the Dean. He will be informed as promptly as possible as to just what credit he can be given, and in what, if any, branches he is deficient. This will make it unnecessary for the student to estimate closely his own credits, and will secure for him a prompt and definite reply to his inquiry concerning his preparation for the study of medicine.

The college preparation for the medical courses may be accomplished at the University of Chicago in six quarters. A student may be admitted to the medical courses conditioned in not more than four majors of college work, but all his conditions must have been removed before he can enter upon the work of the second year of the medical course.

Attention is called to the fact that any credits which may be required in addition to high-school work may be secured in the Colleges of Arts, Literature, and Science of the University of Chicago by attendance during extra quarters before entering the medical course, or, in small part, by taking courses in these Colleges during the student's attendance upon the medical course. Credit will be accepted for such work done in any other college or university of equal standing.

C. REQUIREMENTS FOR THE COMBINED COURSE FOR THE DEGREES OF S.B. AND M.D.

Students seeking a Bachelor's degree (A.B., Ph.B., or S.B.) from the University of Chicago, in connection with the degree of M.D. from Rush Medical College, must comply with the established regulations of the University prescribed for the courses leading to such degrees. As the fundamental branches of the medical curriculum are taught in the University, the student may combine the course for a Bachelor's degree with that for the Medical degree, electing as science courses those offered in the departments of Anatomy, Physiology, etc., which are also courses in the medical curriculum. The prescribed work for these degrees is indicated in the table on p. 29.

While it is thus possible for one to secure a Bachelor's degree and the degree of M.D. in from six to six and one-half years, every student should secure a more thorough and comprehensive collegiate preparation if it is possible for him so to do. For students taking this broader course, the following subjects are recommended as of especial value in preparation for medical study: Greek, 3 majors; Calculus, 1 major; Elementary Botany, 1 major; General Morphology of Thallophtyes, 1 major; Introductory Physiology, 1 major; Physical Chemistry, 1 major; Quantitative Chemical Analysis, 1 major; Physiography, 1 major; Psychology, 2 to 4 majors.

Applicants for admission to advanced standing in the courses for the degrees of A.B., Ph.B., or S.B., at the University of Chicago, should apply to the University for the Circular of Information of the Colleges.

TOTAL REQUIREMENTS FOR THE BACCALAUREATE DEGREES

(Including preparatory and college work in both Junior and Senior Colleges. One preparatory unit is counted as two College Majors, except that there are certain subjects which must be taken in college rather than in a preparatory school.)

	A.B.	Ph.B. (Lit.)	S.B.	Ph.B. (C. & A.)	Ed.B.
Philosophy, Psychology.....	2	2	1	..	2
History.....	4	4	3	7	4
Political Economy, Political Science, History, Sociology.....	..	3 (or 4)	2	4	..
Greek.....	9	..	..	..	..
Latin.....	11	..	..	..	..
Latin, French, or German.....	..	14 (or 13)	6	13	..
French or German.....	4	..	4	..	4
English.....	8	8	8	8	8
In a single Department.....	..	6	..	..	6
Mathematics.....	6	5	6	5	5
Science.....	2	3	8	3	2
Mathematics or Science.....	2	2	9	2	2
Electives.....	18	19	19	6	..
Professional Group.....	..	..	..	18	..
Electives or Professional Group.....	..	..	..	..	33
	66	66	66	66	66

ADMISSION TO ADVANCED STANDING

Students are admitted to advanced standing in the Medical Course of the University as follows:

Students from other medical schools whose standards are fully equivalent to those of this institution may receive credit for time spent—estimated in months—and for work successfully completed in such institutions, provided it is equivalent to corresponding work in the medical course in the University. Such a student should give an explicit statement in regard to his preliminary education before beginning the study of medicine, the date of beginning and ending of each session attended in a medical college, together with the name of the college and a statement of the studies which he has successfully completed, this latter statement setting forth, if possible, the exact number of hours given to each subject. The credit claimed in each branch must be passed upon by the Dean of Medical Students or by the head of the corresponding department at the University.

Application blanks.—Blanks for presenting these credits will be furnished on application to the Dean of Medical Students. A student may matriculate at any time in person, or by correspondence.

Students seeking admission to advanced standing are urgently advised to enter for the Summer Quarter.

REQUIREMENTS FOR GRADUATION

The following are the requirements for the degree of Doctor of Medicine:

The candidate must not be less than twenty-one years of age, and must have studied medicine the legal period. He must have paid all dues, must have com-

plied with all the requirements, and must have maintained unexceptional conduct while at the college.

He must have attended twelve full quarters, or an equivalent amount of time, in a recognized medical school, of which at least the last three quarters must have been in this institution, and forty-five months must have elapsed between the beginning of his first course of medical lectures and the date of his graduation.

He must have completed successfully all of the work required, as follows: 18 majors of work in the Freshman and Sophomore years, comprising a minimum of 6 majors in Anatomy (from courses offered in the Department of Anatomy and Neurology and the subdepartment of Embryology; these courses include both Gross and Microscopic Anatomy¹); 5 majors in Physiology (from courses offered in the Department of Physiology and the subdepartment of Physiological Chemistry); 1 major in Pharmacology; 3 majors in the Departments of Pathology and Bacteriology; 3 majors in one or more of these departments of his choice.²

His work for the first two years must be pronounced satisfactory by the Committee on Promotions, when a certificate for the completion of the first 18 majors of medical work will be issued to him.

Twenty-two majors of work in the Junior and Senior years, comprising a minimum of 2 majors in Pharmacy, Materia Medica, Therapeutics and Preventive Medicine; 1 major in Pathology; 5½ majors in Medicine; 5½ majors in Surgery, at least .8 of a major of which must be in Surgical Anatomy; 3 majors in Obstetrics and Gynecology,³ at least 2 majors of which must be in Obstetrics; 1.2 majors in Laryngology and Otolaryngology; .8 major in Ophthalmology; 1 major in Skin and Venereal Diseases, at least .4 major in each; 2 additional majors in any branch or branches of his choice. These requirements are presented in detail in the departmental statements pp. 55 to 73.

He must have passed, successfully, a final examination, both written and practical, in Materia Medica and Therapeutics; Pathology; Medicine; Surgery; Obstetrics and Gynecology; in Laryngology and Otolaryngology; Ophthalmology; Skin and Venereal Diseases.

He must attend the graduating exercises and receive his diploma in person, unless excused for cause by special action of the Faculty.

GENERAL INFORMATION FOR STUDENTS ENTERING THE FRESHMAN AND SOPHOMORE CLASSES

ROUTINE OF ENTRANCE

I. CREDENTIALS

Applications should be addressed to The University of Chicago, or to Rush Medical College, Chicago, Ill. When presenting himself for admission to the University, the student should bring his *admission credits*, if he is entering a

¹ They must include the dissection of the lateral half of the human body.

² As to the conditions governing such choice see p. 38, paragraph 4.

³ Each student must have personally attended not less than five patients in confinement.

Junior College at its beginning; his *letter of dismissal* and an official statement concerning his previous work, if he is entering with advanced standing from another institution; and a *diploma*, if he is applying for admission to a Graduate School.

These documents should be presented at the office of the Dean of Medical Students, Room 13, Physiology Building. Detailed directions will be furnished in the Dean's office as to the mode of matriculating and registering for courses of instruction desired.

II. MATRICULATION AND REGISTRATION

1. *Time of registration.*—(a) Students in residence in the Summer Quarter will register for the Autumn Quarter during the second week in August. Students in residence in the Autumn Quarter will register for the Winter and Spring Quarters during the first week of December on the days announced on the bulletin boards and in the *Weekly Calendar*. (b) Students entering the University for the first time, or resuming work after absence for a quarter, will register on or before the last day of the month preceding the quarter in which work is to be done.

2. *Order of procedure for new students.*—New students will: (a) In case they come from a secondary school, present credentials to the Examiner for Secondary Schools and secure a card of admission credits. Those entering from colleges submit credentials to the Examiner for Colleges. This may be done by correspondence. New students are urged to send their credentials to the Examiner at least two days before they come to register. (b) Matriculate in the office of the Dean of the School or College to which admission is desired. Matriculation is granted on presentation of the proper credentials which entitle the student to enter the University. As evidence of admission the student is given a *matriculation card*. This card should be retained under all circumstances, as it must be shown whenever membership in the University is to be demonstrated. (c) Register, in the same office, the courses of study desired for the ensuing quarter. For this purpose the student will be given a *registration card* for the quarter, on which, after consultation with the Dean, the courses desired will be entered. (d) Pay the University fees for the ensuing quarter. In order to do this, the student will present the matriculation card and the proper registration card at the office of the Registrar, Press Building, Room 1. On payment of fees the Registrar will stamp the matriculation card and return it to the student, together with a receipt for tuition fees and for laboratory fees (if any).

Tuition and other fees may conveniently be paid by check to the order of the University of Chicago. Details as to fees will be found below.

The names of the students will be sent to instructors as entitled to attend classes *only after the fees have been paid*, as above specified.

FEES FOR MATRICULATION, TUITION, DEPOSITS, AND APPARATUS

1. *Matriculation fee.*—(a) The matriculation fee is \$5, and is required of every student on entrance to the University. It is payable but once. (b) A medical student will also matriculate as a student of Rush Medical College. No

extra fee is charged, and the matriculation is good for the complete medical course including the clinical years. (c) An undergraduate student, candidate for a Bachelor's degree, who wishes to take the medical course as a part of the work for the Bachelor's degree, will matriculate also as a student of Rush Medical College at the beginning of the first year of his work in the medical course. No extra fee is charged, and the matriculation is good for the complete medical course, including the clinical years.

NOTE.—Matriculation for Rush Medical College can be accomplished at the University through the Dean of Medical Students.

2. *Tuition fee.*—(a) The tuition fee for the medical courses (3 to 3½ majors each quarter) is \$60 per quarter, including all laboratory fees.

Under the medical-practice acts and the rules of the medical examining boards of most of the states of this country, an applicant for a license to practice must have attended at least four annual sessions in a recognized medical school. Therefore, a student taking the medical courses with a view of procuring the degree of M.D. must matriculate *as a medical student* at least forty-five months before the date of his expected graduation in medicine. From the date of such matriculation he is required to pay the tuition fee for the medical courses, whether he is registered as a Senior College student, a graduate student, or as a medical course student.

In order that a graduate student, senior or junior college student, may have his work counted toward the M.D. degree, he must be matriculated as a student of Rush Medical College and must each quarter secure from the Dean of Medical Students a card of advice as to registration, and must present this card to his own Dean on registering with him.

NOTE.—A student who is taking the medical courses with *no* intention of securing the medical degree may, if he prefers, pay the usual University fee of \$40 per quarter, with additional laboratory fees as follows:

In Chemistry and Practical Gross Anatomy, \$5 for a major course and \$2.50 for a minor course.
In all Biological Laboratory courses, except Practical Gross Anatomy, \$2.50 for a major course and \$1.25 for a minor course.

(b) Students taking two majors or less will pay \$20 per major. (c) All tuition and laboratory fees are due and payable on or before the FIRST day of EACH QUARTER. All fees are payable to the Registrar, Press Building, Room 1.

Registration is not complete until all University bills are paid. Those who fail to meet this obligation within the first five days of the quarter are not regarded as members of the University. After the fifth day, to secure membership in the University, the consent of the Dean and the payment of a fee of \$5 for late registration will be required.

3. *Deposits.*—(a) A deposit of \$5 is required from each student to cover the cost of unnecessary damage in the University buildings, and of avoidable loss and breakage in the laboratories. The deposit must be made on entering the University. Deductions will be made from this deposit to cover the cost of articles not returned, or of damage to University property. Each student will be charged for damage or loss for which he is individually responsible, and for his *pro rata* share of damage or loss, the responsibility for which cannot be individually located. The balance will be refunded. (b) Each student who procures a skeleton from

the Osteological Laboratory will deposit \$12 for the same, which sum will be refunded when the skeleton is returned uninjured.

4. *Microscopic and other laboratory apparatus and supplies.*—(a) A compound microscope is required for most of the medical courses. Every student is strongly advised to purchase a good microscope, with an immersion lens, in order that he may become familiar with the same instrument which he will use after his graduation. Students not possessing a microscope may rent one from the University Supply Department, at a cost of \$1.50 per quarter for a compound microscope, and \$1 additional for an immersion lens. (b) Biological coupon tickets (\$2.50 or \$5) may be procured from the Registrar for the purchase, at the Supply Department, of dissecting instruments, microscope slides, covers, and slide-boxes, chemical apparatus (breakage), and such other appliances as may be required in the laboratory courses. (c) Students taking courses in Chemistry are required to purchase Chemistry coupon tickets. Unused portions of coupon tickets are refunded. (d) The necessary textbooks may be purchased at the University Press. (e) All students taking courses in the Department of Physical Culture are required to provide themselves with a gymnasium suit for use in the gymnasium. The cost of such a suit is about \$4.

ROOMS, BOARD, AND GENERAL EXPENSES

There are ten dormitories on the University quadrangles. Two of these are reserved for the students of the Divinity School, and five are for women. A University House is organized in each dormitory; each House has a Head, appointed by the President of the University, and a House Committee, elected by the members; also a House Counselor, selected from the Faculties of the University by the members of the House. The membership of the House is determined by election, and each House is self-governed under the general control of the University Council.

The cost of rooms in the dormitories is from \$20 to \$74 per quarter of twelve weeks. This includes heat, light, and care. Each hall for women has separate dining-hall and parlors. The cost of table board in these halls is \$4.50 per week.

All applications for rooms, or for information concerning rooms and board within or without the quadrangles, should be made to the Registrar.

For further details, see special circulars as to rooms and board, which will be sent on application.

The following table will furnish an estimate of the annual expenses for thirty-six weeks of a student in the University, residing within the quadrangles:

	Lowest	Average	Liberal
University bill, tuition*.....	\$180.00	\$180.00	\$180.00
Rent and care of room.....	60.00	105.00	225.00
Board.....	100.00	126.00	225.00
Laundry.....	15.00	25.00	35.00
Textbooks and stationery.....	10.00	20.00	50.00
Total.....	\$365.00	\$456.00	\$715.00

*Medical students attending the first quarter must pay the matriculation fee of \$5 to the University.

It is believed that students who find it necessary to reduce expenses below the lowest of these estimates can do so. Rooms outside the quadrangles, furnished with heat, light, and care, may be obtained at from \$1.25 a week upward, the \$1.25 rate being easily secured where two students room together. Many places offer room and board from \$4.50 upward. The Men's Commons, Hutchinson Hall, offers to students meals *à la carte*. During the Summer Quarter the Men's Commons is open to both men and women. A list of approved boarding places outside the quadrangles is kept on file at the Information Office, Cobb Lecture Hall, and information regarding them may there be obtained.

GENERAL INFORMATION FOR STUDENTS ENTERING THE JUNIOR AND SENIOR CLASSES AT RUSH MEDICAL COLLEGE

Attendance.—In order to be credited properly with attendance on any given term or course, it is imperative that students be present at the opening of each quarter. *After the second day of any quarter no student can register except by special consent of the Dean, and the payment of \$5 late registration fee.* At least 80 per cent of any quarter or of the scheduled hours in any course for which a student is registered, must be attended in order to receive credit for the course.

Matriculation.—Each student matriculates on entering the College for the first time, but not for subsequent quarters. Matriculation may be accomplished by mail.

Registration.—Each student registers at the beginning of each quarter, or earlier if desired, by the payment of the tuition fee for the quarter, and filing a registration card.

In case of early registration this card is retained at the Registrar's office and *must be reclaimed by the student in person on the first or second day of the quarter. If not reclaimed at that time, the student's registration for the quarter will be canceled, and can only be restored by the consent of the Dean and the payment of \$5 late registration fee.*

A student, upon entering the College at the beginning of his first quarter, will procure from the Registrar a blank application for admission, fill out the same carefully, and return it to the Registrar, with the matriculation fee, for which he will receive a receipt.

The student will then present himself to the Dean of Students, and exhibit to him the credentials for admission to advanced standing (see requirements for admission to advanced standing, p. 29).

The Dean will issue a card certifying admission to the proper class, and will advise respecting the courses of study to be taken.

College fees.—(1) Matriculation fee \$5, payable but once.¹ (2) Tuition for each quarter, \$60. (3) A discount of \$5 is made when the fee for three successive quarters is paid in advance. (4) No student can be assigned to any college work

¹ Medical students attending the first quarter must pay the matriculation fee of \$5 to the University.

until his fees are paid. (5) The annual ticket for the County Hospital is \$5, which is procured from the Warden at the Hospital.

Deposits.—A deposit of \$5 is required from each student to cover the cost of unnecessary damage in the College buildings, and of avoidable loss and breakage in the laboratories. Deductions will be made from this deposit to cover the cost of articles not returned, or of damage to College property. Each student will be charged for damage or loss for which he is individually responsible, and for his *pro rata* share of damage or loss, the responsibility for which cannot be individually located. The deposit must be made on entering the College.

Members of the graduating class may rent from the College the cap and gown worn at the commencement exercises. These articles are to be returned in good order.

PHYSICIAN'S FEE

Graduates of this College are admitted to all lectures upon the payment of the annual fee of \$5. Graduates of other colleges, attending the full course, will pay the fees of undergraduate students, or, a physician may pay \$20 per month, which entitles him to attend all except laboratory courses for that period.

Laboratory courses may be taken on the payment of a fee of \$20 for each major course.

Graduates of this or other colleges who are visiting the city for a brief time are cordially welcomed, but are required to procure complimentary tickets at the office.

No one is authorized to make any modification of the terms regarding fees. On financial matters the Registrar, who represents the Comptroller at the College office, should be consulted.

The right is reserved to make changes in the fees, curriculum, or in any other matter at any time.

Schedule of lecture hours.—Schedules are issued from the College office giving the time and place of each exercise.

Board and lodging.—Rooms may be obtained in the vicinity of the College at from \$1 to \$3 per week. Day board may be had at from \$3 to \$5 per week. Board and room together may be obtained at from \$3.50 to \$7 per week. A Bureau of Information is maintained at the College to which students may apply for directions as to desirable board and lodging.

Books and instruments.—The average annual cost of the required books and instruments varies from \$15 to \$20.

The following table will furnish an estimate of the expenses of a student for each year at Rush Medical College:

	Lowest	Average	Liberal
Tuition for each year.....	\$180.00	\$180.00	\$180.00
Board and room.....	145.00	180.00	252.00
Laundry.....	15.00	21.00	36.00
Books and instruments.....	15.00	21.00	36.00
Incidental expenses.....	45.00	75.00	105.00
Total.....	\$400.00	\$447.00	\$609.00

THE YOUNG MEN'S CHRISTIAN ASSOCIATION

A branch of the Young Men's Christian Association is in active operation at Rush Medical College, and the headquarters of the West Side Association are situated within a short distance of the College buildings. Membership in the Association, with the privilege of gymnasium, bathrooms, lecture courses, etc., may be obtained through the Rush Medical branch at reduced prices. Further information in regard to the Association may be obtained by application to the Rush Medical branch of the Association.

THE QUARTER SYSTEM

The academic year of the University of Chicago and of Rush Medical College is divided into four quarters. These are designated as the Summer, Autumn, Winter, and Spring Quarters, beginning, respectively, about June 20, the first of October, the second of January, and about the first of April, each continuing for twelve weeks. A recess of about one week occurs between the end of each quarter and the beginning of the next following, excepting that there is a recess of one month at the close of the Summer Quarter.

THE MEDICAL CURRICULUM AS RELATED TO THE QUARTER SYSTEM

The general course of instruction in Rush Medical College requires four years of study in residence, with a minimum of attendance upon three quarters of each year. These years are designated as the Freshman, Sophomore, Junior, and Senior years, respectively.

A student may begin his college work on the first day of any quarter (see, however, p. 38, §5), and may continue in residence for as many successive quarters as he desires, and will receive credit for work accomplished. Attendance during all the four quarters of the year is optional, but will not secure a time credit of more than one year in a medical school. At least forty-five months must elapse between the date of the first matriculation and the date of graduation. Under the restrictions imposed, this system does not conflict with the existing medical-practice acts, nor with the rulings of the various State Boards of Medical Examiners.

THE SUMMER QUARTER

Attention is directed to the special opportunities afforded for medical study in the Summer Quarter. The climate of Chicago is particularly well adapted to midsummer work. Instruction in all departments is given in the Summer Quarter.

DEFINITION OF MAJOR AND MINOR

A Major course is defined as a didactic or recitation course, occupying 5 hours a week for one quarter (a total of 60 hours), or a laboratory, practical, or clinical course, occupying 10 hours a week for one quarter (a total of 120 hours). A double major occupies twice the number of hours per week for the quarter.

A Minor course is a didactic or recitation course, occupying 5 hours a week

for one-half a quarter, of six weeks; or a laboratory course, occupying 10 hours per week for a similar period. The value of each course in the following departmental statements is stated as a *major* (Mj), a *double major* (DMj), a *minor* (M), a *double minor* (DM), or the decimal fraction of a *major* or *minor*.

GRADUATE COURSES IN MEDICINE FOR PHYSICIANS AND ADVANCED STUDENTS

Special opportunities are afforded to physicians and graduate students at Rush Medical College and at the University for advanced and research work in Physics, Chemistry, Zoölogy and Embryology, Anatomy, Neurology, Psychology, Physiology, Physiological Chemistry, and Pharmacology, and in Pathology and Bacteriology in Medicine, Surgery, Obstetrics, Gynecology, and in the other clinical departments. Research work may be conducted independently, or under the direction of an instructor in the department to which it belongs.

Physicians are admitted on payment of the matriculation fee, and payment of fees in proportion to the amount of work taken (see p. 35). The applicant's fitness for any course which he desires to take should be ascertained by consultation with the head of the respective department.

All of the courses offered are well adapted to students of this class, and they are outlined in pp. 40-73 of this Circular. Correspondence is invited in reference to special work other than the courses offered. It will be sufficient to address letters in reference to such courses to Rush Medical College.

Students desiring to engage in work leading to the degrees of Master of Science, Master of Arts, Master of Philosophy, or to the degree of Doctor of Philosophy, are requested to write for the Circular of Information of the Graduate Schools, the University of Chicago.

THE WORK OF THE MEDICAL COURSE FOR THE FRESHMAN AND SOPHOMORE YEARS

1. *Outline of the course.*—The course for the first two years' work in Medicine consists mainly of instruction in the fundamental medical sciences: Human Anatomy, Microscopic Anatomy, Histology, Neurology, and Embryology, Physiology, Physiological Chemistry, Toxicology, Pharmacology, Bacteriology, and Pathology. All this work is given at the University of Chicago.

2. *Amount of work.*—The amount of work required is 18 majors.

3. *The curriculum.*—The following courses constitute the curriculum recommended for and pursued by the majority of the students:¹

a) *Chemistry*, the Chemistry of Medicinal Drugs, $\frac{1}{2}$ major (25).²

b) *Anatomy*, $7\frac{1}{2}$ majors as follows: Human Anatomy (Dissecting), 4 majors (1, 2, 3, 4); Splanchnology, Histology, and Cytology, 1 major (10); Embryology, 1 major (Zoölogy 20 or 21); Neurology, 1 major (Anatomy 17); Elective $\frac{1}{2}$ major.

¹ Detailed statements concerning the courses are given below under the various departments of instruction. They should be consulted in every case in regard to equivalent courses which may be submitted for those whose numbers are given in the above table.

² The numbers in parentheses refer to the course numbers in the corresponding department.

c) *Physiology*, 6½ majors as follows: *Physiology*, 3 majors (12, 13, 14); *Physiological Chemistry*, 2 majors (19 and 20); *Pharmacology*, 1½ majors (21).

d) *Pathology*, 3½ majors, as follows: *Bacteriology*, 1½ majors (21); *Pathology*, 2 majors (1A, 1B).

4. *Election of medical courses*.—Students with adequate preparation and special qualifications are permitted to elect other courses (usually advanced or research work), in lieu of some of those above prescribed.

In electing his work the student should bear in mind: (a) That the right of election must be confirmed in writing in advance by the Dean and by the head of the department concerned; (b) that his registration for each quarter must receive the approval of the Dean; (c) that the prerequisites for any course must have been satisfied before the course can be elected; (d) that a minimum amount of work in the several branches is required for graduation in Medicine.

5. *Arrangement of courses*.—The order of courses has been arranged in such a way as to insure so far as possible for the student beginning his medical studies with any single quarter of the year a complete annual course during any three consecutive quarters; *but students are advised to begin their medical work proper with the Autumn Quarter*.

ARRANGEMENT OF COURSES FOR SIX QUARTERS

The following table shows the arrangement of the courses for the six quarters of work comprised in the first two years of Medicine and the recommended sequence of studies. No student, however, is obliged to follow the order given, or to take full work in any quarter. Credit will be given for every course satisfactorily completed.

FIRST NINE MAJORS OF WORK

(Freshman year of the Medical Course)

AUTUMN QUARTER, 1910

Subject	Department	Course No.	Value
Splanchnology, Histology, and Cytology... Dissection (Human).....	Anatomy Anatomy	10 from courses 1 to 4	1 Mj 1½ Mj
Elective			½ Mj

The following other courses are given in this quarter and are open to students with advanced standing and the necessary prerequisites: *Bacteriology*, *Physiology*, *Analytical Chemistry*, laboratory work in *Organic Chemistry*, *Human Anatomy*, and advanced work in all the departments.

WINTER QUARTER, 1911

Subject	Department	Course No.	Value
Neurology..... Dissection (Human).....	Anatomy Anatomy	17 from courses 1 to 4	1 Mj 1½ Mj
Physiological Chemistry.....	Physiology	20	1 Mj

Other courses given are: Analytical Chemistry, Physiology, Pathology, and advanced work in all the departments.

SPRING QUARTER, 1911

Subject	*Department	Course No.	Value
Embryology.....	Zoölogy	20	1 Mj
Physiology.....	Physiology	12	1 Mj
Dissection (Human)	Anatomy	from courses 1 to 4	1 Mj

Other courses given are: Analytical and Organic Chemistry, Chemistry of Medicinal Drugs, Pathology, Pharmacology, and advanced work in all the departments.

SECOND NINE MAJORS OF WORK*

(Sophomore year of the Medical Course)

AUTUMN QUARTER, 1911

Subject	Department	Course No.	Value
Bacteriology.....	Pathology	21	1½ Mj
Physiology.....	Physiology	13	1 Mj
Physiological Chemistry	Physiology		1 Mj

Other courses given are: Human Anatomy, and advanced work in all the departments.

WINTER QUARTER, 1912

Subject	Department	Course No.	Value
Physiology.....	Physiology	14	1 Mj
Pathology.....	Pathology	1A	1 Mj
Elective.....			1 Mj

Other courses given are: Splanchnology, Physiological Chemistry, Physical Examination, and advanced work in all the departments.

SPRING QUARTER, 1912

Subject	Department	Course No.	Value
Pathology.....	Pathology	2B	1 Mj
Pharmacology.....	Physiology	21	1½ Mj
Chemistry of Medicinal Drugs	Chemistry	25	½ Mj

Other courses given are: Embryology, Physiology, Human Anatomy, Neurology, and advanced work in all the departments.

*For the Autumn Quarter, 1910, and the Winter and Spring Quarters, 1911, this schedule remains as stated in the Circular of Information for 1909-10

THE WORK OF THE CLINICAL YEARS

Elective and optional courses.—A certain number of courses, especially in the Freshman and Sophomore years of study, are required as essential to securing credit in making up the four-year curriculum which must precede graduation. All of the courses offered in the Junior and Senior years are elective; that is, the student will be required to select from the list of elective courses a number sufficient to insure him credit for about eleven majors each year. The term "major" is fully explained in another paragraph. By this system the student can select, not only his line of study, but also his teachers in such special lines, and can, further, so arrange his work that in successive years he can practically include all branches taught in the College. He will be required to present, however, a minimum amount of credit in each department. See requirements for graduation (pp. 29-30).

Advice by the head of each department as to the recommended sequence of courses is contained in a circular of information issued to each student at the beginning of the Autumn Quarter.

The quarter system with elective courses is especially well adapted to the medical curriculum, and possesses the advantages of allowing each student to select a portion of his studies, and so to adapt his course to his tastes, his abilities, and his needs. The plan is *not* designed, however, to enable a student to prepare for a special line of practice. A broad and thorough education in general medicine is essential for adequate preparation for special practice in later years.

Optional courses, in addition to those described above, are offered to students who desire to add to the regular as outlined in the requirements for graduation. These optional courses are designed to promote a higher scholarship, and to increase facilities for work in special departments.

FIFTH YEAR

Beginning with the session of 1905-6, a fifth year was added to the curriculum which, until further announcement, will be optional. The work of the year will be that of (A) graduate work in one of the departments of the College; or (B) an internship in a hospital under the following conditions: (1) Each student taking such work will be under the constant supervision of the Faculty, by whom the hospital in which the internship is taken must be approved. (2) The student must present evidence of thorough clinical work, and present a thesis involving original work. (3) He may be required to pass a special examination at the end of the year. On the successful completion of this fifth year he will receive the degree of Doctor of Medicine *cum laude*.

I. THE DEPARTMENT OF ANATOMY

(AT THE UNIVERSITY DEPARTMENT XXIII AND INCLUDING COURSES IN THE DEPARTMENT OF ZOOLOGY)

OFFICERS OF INSTRUCTION

ROBERT RUSSELL BENSLEY, A.B., M.B., Professor of Anatomy.

CHARLES JUDSON HERRICK, S.M., PH.D., Professor of Neurology.

BASIL COLEMAN HYATT HARVEY, A.B., M.B., Assistant Professor of Anatomy.

GEORGE ELMER SHAMBAUGH, M.D., Instructor in Anatomy of the Ear, Nose, and Throat.

EDWIN GARVEY KIRK, PH.D., M.D., Instructor in Anatomy.

ELIZABETH HOPKINS DUNN, A.M., M.D., Instructor in Anatomy.

JAMES PATTERSON, S.B., Associate in Anatomy.

PAUL STILWELL MCKIBBEN, A.B., Assistant in Anatomy.

EDWARD JAMES STRICK, S.B., Assistant in Anatomy.

MAURICE PINCOFFS, S.B., Assistant in Anatomy.

RUSSELL MORSE WILDER, S.B., Assistant in Anatomy.

FELLOW, 1910-11

EDMUND VINCENT COWDRY, A.B.

INTRODUCTORY

The Hull Laboratory of Anatomy of the University of Chicago has been especially fitted for graduate work, including advanced courses in Human Anatomy and Embryology, as well as for original research in these subjects. Opportunities are afforded graduate students who wish to pursue work for the higher degrees of A.M., S.M., or Ph.D.

COURSES OF INSTRUCTION

PRIMARILY FOR THE SENIOR COLLEGES

o. Introductory Neurology.—An elementary course on the structure of the Nervous System and the Organs of Special Sense. This course is designed especially for teachers. M. or Mj. Summer Quarter. Three lectures; 4 hours laboratory work. Hours to be arranged. Laboratory fee, \$1.25. DR. DUNN. [Not given in 1910.]

oo. The Architecture of the Nervous System.—A conference and laboratory course on the finer structure of the Nervous System. Mj. Summer Quarter. 2 hours conference, 6 hours laboratory work. Hours to be arranged. Limited to eight students. DR. DUNN.

***1. Dissection of Arm and Thorax (Human).**—The student makes a complete dissection of all structures, using atlases and textbooks as guides. The work is largely independent. A dissection must be completed in the quarter in which it was undertaken. 1½Mj. Autumn Quarter. Repeated in Winter and Spring Quarters. Lectures and laboratory: M., F., 2:00-5:00. Laboratory fee, \$7.50. ASSISTANT PROFESSOR HARVEY, DR. KIRK, MR. PATTERSON, AND OTHERS.

***2. Dissection of Leg and Abdomen (Human).**—The arrangements for this course are similar to those for course 1. 1½Mj. Autumn Quarter. Repeated in Winter and Spring Quarters. Laboratory fee, \$7.50.

***3. Dissection of Head, Neck, and Spinal Column (Human).**—The arrangements for this course are similar to those for course 1. Mj. Autumn Quarter. Repeated in Winter, and Spring Quarters. Laboratory fee, \$5.

***4. Dissection of Thorax and Abdomen (Human).**—The arrangements for this course are similar to those for course 1. Prerequisite: courses 1, 2, and 3. Mj. Autumn, Winter, and Spring Quarters. Laboratory fee, \$5.

***5. Dissection of Abdomen (Human).**—The arrangements for this course are similar to those for course 1. Prerequisite: courses 1, 2, and 3. Mj. Autumn, Winter, and Spring Quarters. Laboratory fee, \$5.

*The courses in dissection are offered at Rush Medical College in the Winter Quarter. Hours to be arranged. ASSISTANT PROFESSOR PARKER.

6. Human Osteology.—A systematic study of the human skeleton will be undertaken. The bones of the human body will be drawn, or modeled in clay, in the laboratory. The structure of the composite bones will be considered from the comparative and embryological standpoints. $\frac{1}{2}$ Mj. Autumn and Summer Quarters. Lecture: M., 2:00; laboratory: Th., 2:00–5:00. Laboratory fee, \$1.25. DR. KIRK AND MR. PATTERSON.

7. Topographical Anatomy.—A laboratory course in human anatomy, including dissection and the study of models, preparations, and transverse sections. Mj. Summer Quarter. Prerequisite: courses 1, 2, 3, 4. Laboratory fee, \$5. ASSISTANT PROFESSOR HARVEY AND DR. KIRK.

8. Study Room Courses in Human Anatomy.—These course correspond in their scope to courses 1, 2, 3, and 4, respectively, which they are designed to supplement by the study of preparations, models, and frozen sections. The course may be taken with the corresponding dissection course or after it. $\frac{1}{2}$ Mj. Autumn and Winter Quarters. Laboratory: M.–F., 4:00. Laboratory fee, \$1.25. ASSISTANT PROFESSOR HARVEY, DR. KIRK, AND MR. PATTERSON.

10. Splanchnology, Histology, and Cytology.—A brief course on the structure of the cell and elementary tissues will be followed by a study of the structure of the various viscera. Mj. Autumn Quarter. Lectures: M., Tu., 11:00; recitation: Tu., 12:00; laboratory: W., Th., F., 11:00–1:00. Prerequisite: General Biology. Laboratory fee, \$2.50. PROFESSOR BENSLEY, MESSRS. MCKIBBEN AND STRICK.

11, 12, 13. Advanced Splanchnology.—In these courses the structure of certain groups of organs is studied more thoroughly than in course 10. The laboratory, work includes the advanced technique of investigation, and in the lectures and conferences the recent literature of the subject will be discussed. Course 11 deals with the Digestive Tract and associated structures, course 12 with the Organs of Respiration and Circulation, and course 13 with the Urino-genital Organs. Laboratory fee, \$2.50 for each course. Mj. Winter Quarter, PROFESSOR BENSLEY, MESSRS. MCKIBBEN AND STRICK.

16. Elementary Neurology.—An elementary course on the structure of the central nervous system. Mj. Autumn Quarter. Two lectures. 7 hours laboratory work. Prerequisite: course 10. Laboratory fee, \$2.50. PROFESSOR HERRICK.

17. Gross and Microscopic Anatomy of the Human Central Nervous System and Sense Organs.—Mj. Spring Quarter. Lectures: Th., F., 11:00; recitation: F., 12:00; laboratory: M., Tu., W., 11:00–1:00. Prerequisite: Microscopic Anatomy. Laboratory fee, \$2.50. PROFESSOR HERRICK, DR. DUNN, AND ASSISTANTS.

20. Anatomy of the Ear, Nose, and Throat.—Special anatomy for practicing physicians. This course will consist of laboratory work, lectures, and demonstrations of anatomical preparations. DM. First Term, Summer Quarter. Lectures and laboratory: M., Th., 1:30–4:30. Laboratory fee, \$2.50. DR. SHAMBAUGH.

21. Organs of Special Sense.—Laboratory and conference course. Laboratory fee, \$2.50. Mj. Spring Quarter, DR. DUNN.

PRIMARILY FOR THE GRADUATE SCHOOL

25. Comparative Neurology.—The evolution of the architecture and functions of the vertebrate nervous system. Mj. Autumn Quarter. Two lectures, 6 hours laboratory work. Prerequisite: course 16 or 17. Laboratory fee, \$2.50. PROFESSOR HERRICK.

26. Mammalian Neurology.—With special reference to the structure of the human brain. Mj. Winter Quarter. Two lectures. 6 hours laboratory work. Prerequisite: course 25. Laboratory fee, \$2.50. PROFESSOR HERRICK.

28, 29, 30. Neurological Research.—3Mj. Autumn, Winter, and Spring Quarters, PROFESSOR HERRICK.

Admission to this course will be granted only after consultation with the Professor of Neurology. A good knowledge of general anatomy, physiology, and neurology will be expected.

31, 32, 33. Neurological Seminar.—3Mj. Autumn, Winter, and Spring Quarters. Th., 4:00-6:00, PROFESSOR HERRICK.

35. Comparative Anatomy, Histology, and Histogenesis of the Organs of Secretion and Absorption.—Mj. Spring Quarter. Lectures and laboratory work: M.-F., 2:00-4:00. Prerequisite: Human or Comparative Anatomy and Histology. Laboratory fee, \$2.50. PROFESSOR BENSLEY.

38. Morphology of the Blood and Blood-forming Organs.—Mj. Spring Quarter. Lectures and laboratory work: Tu.-F., 8:30-10:30. Prerequisite: same as for course 35. Laboratory fee, \$2.50. MR. STRICK.

40, 42, 43. Advanced Work in Anatomy.—1 to 3Mj. Laboratory fee, \$2.50 per major. PROFESSORS BENSLEY AND HERRICK, AND ASSISTANT PROFESSOR HARVEY.

41, 42, 43, 44. Research Work.—The laboratory is equipped for the original investigation of anatomical problems. Suitably trained and endowed students who have the time to do such work, will be encouraged to undertake it. 2 to 4 Mj. PROFESSOR BENSLEY.

45, 46. Seminar.—A limited number of students can, by special arrangement, be admitted to a seminar, in which subjects of current interest in Gross or Microscopic Anatomy will be discussed. 2Mj. Autumn and Winter Quarters, F., 4:00, PROFESSOR BENSLEY.

XXII. THE DEPARTMENT OF ZOÖLOGY

AT THE UNIVERSITY

OFFICERS OF INSTRUCTION*

CHARLES OTIS WHITMAN, PH.D., LL.D., Professor and Head of the Department of Zoölogy; Curator of the Zoölogical Museum.

FRANK RATTRAY LILLIE, PH.D., Professor of Embryology; Assistant Curator of the Zoölogical Museum.

CHARLES MANNING CHILD, PH.D., Associate Professor of Zoölogy.

WILLIAM LAWRENCE TOWER, S.B., Assistant Professor of Zoölogy.

REUBEN MYRON STRONG, PH.D., Instructor in Zoölogy.

VICTOR ERNEST SHELFORD, PH.D., Instructor in Zoölogy.

OSCAR RIDDLE, PH.D., Instructor in Zoölogy.

MARY BLOUNT, PH.D., Assistant in Zoölogy.

JOSEPH CLARK STEPHENSON, S.B., Assistant in Zoölogy.

MAUD SLYE, A.B., Laboratory Assistant.

FELLOWS, 1910-11

GEORGE WILLIAM BARTELMEZ, S.B.

HENRY ELLSWORTH EWING, A.B., A.M.

GEORGE LESTER KITE, S.B.

INTRODUCTORY

The courses in Zoölogy aim to meet the needs of a general education, and at the same time to give a thorough preparation for a scientific career. The leading purpose is to make clear the subject-matter of the science, its guiding ideas, its principal subdivisions, its scope, methods, and history, and its relations to other sciences. For advanced work in Zoölogy, students must acquire early a reading

*Professor Williston head of the Department of Paleontology, also gives courses in the Department of Zoölogy.

knowledge of German and French, as a knowledge of these languages is assumed. Besides the cognate biological sciences, a good working knowledge of Physics and Chemistry and at least an elementary knowledge of Geology are necessary.

The courses may be classified as follows:

I. *Introductory*.—Courses 1 to 4 are intended for beginners.

II. *Behavior and Ecology*.—The introductory work is presented in courses 3, 4, and 16. Course 17 is devoted to analytical study of behavior, and supplements the work in the Department of Psychology. Courses 18 and 19 deal with behavior in nature and its relation to local and geographic distribution and are designed to meet the needs of students who are to specialize in ecology, geography, and economic biology. Course 34 is introductory to research.

III. *Animal Morphology*.—Courses 10-14, 20, and 21 deal systematically with invertebrate and vertebrate morphology and are required of all students as prerequisites for research.

IV. *Cytology*.—Course 38 deals with methods and principles, and courses 36 and 37 with the developmental side. Research in courses 41 to 44.

V. *Embryology*.—Courses 13A (second term), 20, 21, 36, and 37 serve as an introduction. Research, courses 41 to 44.

VI. *Evolution and Bionomics*.—Courses 30, 31, and 32 serve as an introduction and prepare the way for research in courses 41-44.

VII. *Research*.—Courses 41-44.

VIII. *The Seminar*.—The Seminar (49-52) is mainly for presentation of the results of research of members and students of this and allied departments. It is open to all students in the department.

Laboratory Fees.—A laboratory fee of \$2.50 per major is charged for courses involving laboratory work.

COURSES OF INSTRUCTION

JUNIOR COLLEGE COURSES

NOTE.—Students beginning the study of zoölogy may start with courses 1, 2, or 3. Students who can do so are recommended to take all three as a first year's work in zoölogy. In those aspects in which courses overlap, special work will be provided for students taking more than one.

1. *Elementary Zoölogy*.—Courses 1 and 2 are introductory to the various fields of present-day zoölogical and biological interest. Those zoölogical movements or discoveries which have most affected human thought, or which have given man most control over nature, are treated historically. The laboratory work consists largely of a study of living animals, and of experimental work, the aim of which is to disclose the nature of the life processes of animals. In course 1, the structures and life-processes of the protozoa, hydra, and planaria are studied in the laboratory. Laboratory fee, \$2.50. Mj. Autumn Quarter.

1A.—An elementary course, designed to prepare students for more advanced work in biology and for teachers in elementary and high schools. Lectures and laboratory work. Laboratory fee, \$2.50. DM. Summer Quarter, Second Term, DR. STRONG.

2. *General Zoölogy*.—(See under 1, and note above.) The laboratory work of this course consists of a study of the structure and growth processes of yeast, the egg-cell of the frog. Laboratory fee, \$2.50. Mj. Winter Quarter.

2A.—An elementary course designed to introduce students to the various fields of present-day zoölogical interest. Emphasis is laid on the study of living

animals and life-processes. Laboratory studies on yeast, amoeba, paramoecium, hydra, planaria, the cell, and the frog. Laboratory fee, \$2.50. DM. Summer Quarter, First Term, DR. RIDDLE.

3. Field Zoölogy.—An introductory course, or the third major of the first year of zoölogy, presenting the more elementary principles of the evolution, behavior, and ecology of aquatic animals, including work on their breeding habits, life-histories, and environmental relations. Field and laboratory work on common North American animals of economic importance is used as a basis for the work. Conferences, 2 hours a week; field and laboratory work, 6 hours a week. No previous training in zoölogy required. Mj. Spring Quarter, DR. SHELFORD.

4. Field Zoölogy.—The more elementary principles of the evolution, behavior, and ecology of land animals, including work on their breeding habits, life-histories, and environmental relations. Field and laboratory work on common North American animals of economic importance is used as a basis for the work. Conferences, 4 hours a week; laboratory and field work 12 hours a week. DM. Summer Quarter, First Term, DR. SHELFORD.

NOTE.—Courses 3 and 4 are given in alternate Summer Quarters.

9. Vertebrate Zoölogy.—A study of the development, anatomy, physiology, and distribution of the vertebrates. The laboratory work includes an examination of eggs and developmental stages, observations on general physiology, and dissection of a few types. Field trips and visits to museums. Reports on selected topics. Laboratory fee, \$2.50. 3M. Summer Quarter, First Term, DR. RIDDLE. [Not given in 1910.]

NOTE.—This course co-operates with and includes course 1 or 2 in the Department of Physiology, the work for 1M being done in the Department of Physiology and 2M in Zoölogy. Students who have had the work in Physiology may take this course as a DM.

SENIOR COLLEGE COURSES

10. Invertebrate Zoölogy.—Study of representatives of the lower invertebrate groups, Protozoa, Porifera, Coelentera, Platyelminthes, and Nemathelminthes; including the anatomy of the adult and the life-history, together with some discussion of habits and distribution. Prerequisite: course 1 or 2, or equivalent. Lectures, 2 hours weekly; laboratory, 6 hours. Laboratory fee, \$2.50. Mj. Autumn Quarter, ASSOCIATE PROFESSOR CHILD.

11A. Invertebrate Zoölogy.—(Course 10 continued.) Study of representatives of the higher vertebrate groups. Prerequisite: course 10. Lectures and laboratory as in course 10. Laboratory fee, \$2.50. Mj. Winter Quarter, ASSOCIATE PROFESSOR CHILD.

11B. Invertebrate Zoölogy.—(Course 10 continued.) Study of representatives of the Arthropods. Lectures and laboratory as in course 10. Mj. Winter Quarter, 1912, ASSOCIATE PROFESSOR CHILD.

11C. Invertebrate Zoölogy.—Study of representatives of the principal invertebrate groups. Prerequisite: course 1 or 2 or equivalent. Laboratory fee, \$2.50. DM. Summer Quarter, Second Term, MR. BARTELMIZ.

12A. Vertebrate Zoölogy.—Comparative anatomy and zoölogy of the lower vertebrates: Amphioxus, Cyclostomes, Pisces, Amphibia. Lectures and laboratory work. Laboratory fee, \$2.50. Mj. Autumn Quarter, DR. STRONG.

12B. Vertebrate Zoölogy.—Lectures on the osteology, evolution, and taxonomy of the lower vertebrates, living and extinct. $\frac{1}{2}$ Mj. Autumn Quarter, PROFESSOR WILLISTON. [Not given in 1910.]

NOTE.—Courses 12A and 12B must usually be taken together.

13A. Vertebrate Zoölogy.—(Course 12A continued.) Reptiles and birds. In the second term the work will include an introduction to vertebrate embryology and technique leading to course 20. Laboratory fee, \$2.50. Mj. Winter Quarter, DR. STRONG.

13B.—Course 12B continued. Reptiles and birds. $\frac{1}{2}$ Mj. Winter Quarter, PROFESSOR WILLISTON.

NOTE.—Courses 13A and 13B must be taken together

14. Vertebrate Zoölogy.—(Courses 12 and 13 continued.) Mammals. Laboratory fee, \$2.50. Mj. Spring Quarter, PROFESSOR WILLISTON.

15. Evolution and Natural History of Domestic Mammals.—A series of illustrated lectures upon the origin, evolution, and natural history of the domestic mammals. Lectures, laboratory, and visits to museums. DM. Summer Quarter, First Term, PROFESSOR WILLISTON.

15A. Evolution and Natural History of Amphibians, Reptiles, Birds.—Lectures, laboratory, recitation, and visits to museums. DM. Summer Quarter, Second Term, PROFESSOR WILLISTON.

16. Studies of Birds.—A course in biology with the bird as the type. Adaptive features connected with flight, color, feeding habits, etc. Field and laboratory work devoted primarily to the habits and classification of birds, with a brief study of bird anatomy. Lectures, 2 hours a week; laboratory, 4 hours a week; and field work as arranged. Laboratory fee, \$2.50. Mj. Spring Quarter, DR. STRONG.

17. Animal Behavior.—A general course dealing with the facts, principles, theories, and methods of analysis of behavior, with particular reference to the lower animals. Lectures and conferences, 2 hours a week; laboratory and field work, 6 hours a week. Desirable antecedents: an elementary knowledge of the principles of zoölogy (Zoölogy 1 or 2) and of general physiology (e.g., Botany 2). Prerequisite: Zoölogy 3 or 4. Laboratory fee, \$2.50. Mj. Spring Quarter, DR. SHELFORD.

18. Animal Ecology.—The behavior, conditions of existence, and breeding relations of the forms which make up the characteristic animal societies of eastern North America; the relation of these societies to physiographic features and environmental processes, such as erosion, deposition, and plant succession. Lectures, conferences, laboratory, and field work. Desirable antecedents: an elementary knowledge of physiography (Geology 1) and of plant ecology (Botany 3). Prerequisite: Zoölogy 3 or 4. Mj. Spring Quarter, DR. SHELFORD. [Not given in 1911.]

19. Geographic Zoölogy.—The world and regional problems of animal distribution and migration as correlated with topography, climate, vegetation, etc.; ecological, faunistic, and genetic animal geography. Lectures, conferences, and reading; field, laboratory, and museum work. Desirable antecedents: an elementary knowledge of the principles of zoölogy (Zoölogy 1 or 2) and of physiography and historical geology (Geology 2). Prerequisite: Zoölogy 3 or 4. DM. Summer Quarter, Second Term, DR. SHELFORD.

NOTE.—Courses 16, 17, and 19 will constitute a year's work in the Autumn, Winter, and Spring Quarters of alternate years. One of them may be given from time to time in the Spring Quarter of years in which all three are not given. They will rotate in the second term of Summer Quarters: 1910, Geographic Zoölogy; 1911, Animal Behavior; 1912, Animal Ecology.

20. Vertebrate Embryology.—Birds and mammals. Lectures, demonstrations, and laboratory work. Prerequisite: Zoölogy 2, and Anatomy 10 and 11, or their equivalents. Laboratory fee, \$2.50. Mj or DMj. Spring Quarter, PROFESSOR LILLIE, ASSISTANT PROFESSOR TOWER, AND ASSISTANTS.

21. Vertebrate Embryology.—Lectures, 3 hours a week; demonstrations and laboratory work, 6 hours a week. Laboratory fee, \$2.50. Mj. Summer Quarter, DR. BLOUNT.

25. Microscopical Methods.—The technique of microscopical preparations, with special reference to the cell. Laboratory fee, \$2.50. DM. Summer Quarter, First Term, DR. STRONG.

29. Marine Biology at the Marine Biological Laboratory at Woods Hole, Mass. Credit is given at the University of Chicago for courses taken at this laboratory. DMj. Summer Quarter, PROFESSOR LILLIE.

GRADUATE COURSES

30. Organic Evolution.—Lectures, library work, and demonstrations on (1) the evidences of evolution, growth of the evolution idea, modern evolution theories; (2) the factors in evolution; (3) results obtained in experimental evolution. This course is designed to meet the needs of students who desire a general knowledge of the facts and problems of evolution and also to serve as a basis for advanced studies

in variation, heredity, and evolution. Prerequisite: A general knowledge of biological facts and theories. Mj or DMj. Winter Quarter, ASSISTANT PROFESSOR TOWER.

31. Bionomic Problems.—An advanced course in which general problems are selected for detailed analysis and discussion. Each student is required to select some topic and become familiar with its scope, the literature, and its relation to general evolution problems. In 1910 emphasis will be laid upon variation and inheritance, especially from the point of view of plant and animal breeding. Prerequisite: Zoölogy 30, 36, and either 38 or 39, or equivalent. Mj or DMj. Autumn Quarter, ASSISTANT PROFESSOR TOWER.

32. Bionomic Problems.—(Course 31 continued.) In 1910 emphasis will be put upon the relations between the evolution of species and the physical and biological environment. Prerequisite: See Zoölogy 31. Mj or DMj. Spring Quarter, ASSISTANT PROFESSOR TOWER.

34. Studies in Animal Ecology.—Students will be assigned topics dealing with the environmental relations of animals. The work will be largely individual. By combined registration in Botany 38, a study of all the organisms of a given area may be conducted. The course is antecedent to research in behavior and ecology. Prerequisite: an elementary knowledge of the principles of ecology. Field, laboratory, and library work as arranged: conferences, 2 hours a week. Mj or DMj. Spring and Summer Quarters, DR. SHELFORD.

36. Physiology of Development.—A consideration of existing data and views as material for a theory of development and heredity. The laboratory work will be on the maturation and fertilization of the ovum and selected topics in invertebrate embryology, and will be adapted to individual requirements. The lectures may be taken alone as $\frac{1}{2}$ Mj. Prerequisite: such of the undergraduate courses as are essential for consideration of the topics considered. Lectures: M., T., W., 8:30. Mj or DMj. Autumn Quarter, PROFESSOR LILLIE.

NOTE.—This course includes the subject-matter of both courses 36 and 37 of previous announcements.

37. The Biology of Sex.—A consideration of the biological problems of sex, more especially from the cytological point of view. One or more special topics will be assigned to each student, who will be expected to report fully on its literature and present status. Prerequisite: courses 30, 36, and either 38 or 39. Mj. Winter Quarter, PROFESSOR LILLIE.

38. Cytology.—A consideration of the more important facts, problems, and theories of cytology. Among the subjects considered are: the morphology and physiology of the cell, cell division, the cell and the organism in growth, reproduction and regulation, the various methods of cytological research, their objects, and their value. Lectures, 4 hours a week; laboratory, 8 hours a week. Mj or DMj. Spring Quarter, ASSOCIATE PROFESSOR CHILD. [Not given in 1911.]

39. Physiology of Form Regulation.—The principal facts, problems, and theories of regeneration and other processes of regulation will be considered with special reference to their bearing upon the problems of reproduction and development, and their significance for biological theory in general. Lectures, 4 hours a week; laboratory, 8 hours a week. Mj or DMj. Spring Quarter, ASSOCIATE PROFESSOR CHILD.

41. Zoölogical Problems.—Research work. For graduate students. Lectures, 1 hour a week; laboratory, daily. Prerequisite: training essential to the special topic undertaken. Laboratory fee, \$2 50. DMj. Autumn Quarter, PROFESSORS WHITMAN AND LILLIE, ASSOCIATE PROFESSOR CHILD, AND ASSISTANT PROFESSOR TOWER.

42. Zoölogical Problems.—(Course 41 continued.) Laboratory fee, \$2.50. DMj. Winter Quarter, PROFESSORS WHITMAN AND LILLIE, ASSOCIATE PROFESSOR CHILD, AND ASSISTANT PROFESSOR TOWER.

43. Zoölogical Problems.—(Course 42 continued.) Laboratory fee, \$2.50. DMj. Spring Quarter, PROFESSORS WHITMAN AND LILLIE, ASSOCIATE PROFESSOR CHILD, AND ASSISTANT PROFESSOR TOWER.

44. Zoölogical Problems.—(Course 43 continued.) Laboratory fee, \$2.50. DMj. Summer Quarter, ASSISTANT PROFESSOR TOWER.

45. Zoölogical Problems.—Research at the Marine Biological Laboratory, Woods Hole, Mass. Prerequisite: such of the elementary courses as are essential to the special topic undertaken. 2 or 3Mjs. Summer Quarter, PROFESSOR LILLIE.

49, 50, 51, 52. Seminar: General Biological Topics.—Two hours weekly. Autumn, Winter, Spring, and Summer Quarters, PROFESSORS WHITMAN AND LILLIE, ASSOCIATE PROFESSOR CHILD, AND ASSISTANT PROFESSOR TOWER.

II. DEPARTMENT OF PHYSIOLOGY

(AT THE UNIVERSITY, DEPARTMENT XXIV, INCLUDING THE SUBDEPARTMENTS OF PHYSIOLOGY, PHYSIOLOGICAL CHEMISTRY, PHARMACOLOGY, AND EXPERIMENTAL THERAPEUTICS)

OFFICERS OF INSTRUCTION

ALBERT PRESCOTT MATHEWS, PH.D., Professor of Physiological Chemistry.

WALDEMAR KOCH, PH.D., Associate Professor of Pharmacology.

ANTON JULIUS CARLSON, A.M., PH.D., Associate Professor of Physiology.

DAVID JUDSON LINGLE, PH.D., Assistant Professor of Physiology.

SAMUEL ALEXANDER MATTHEWS, M.D., Assistant Professor of Experimental Therapeutics.

ALBERT WOELFEL, M.D., Instructor in Physiology.

FRANK HENRY PIKE, PH.D., Instructor in Physiology.

FRANK CHRISTIAN BECHT, S.B., PH.D., Associate in Physiology.

JAMES RICHARD GREER, S.B., Assistant in Physiology.

FRED CONRAD KOCH, S.M., Assistant in Physiological Chemistry.

FRANKLIN CHAMBERS MCLEAN, S.B., Assistant in Pharmacology.

ARNO BENEDICT LUCKHARDT, S.B., S.M., Assistant in Physiology.

HERBERT OTTO LUSSKY, S.B., Assistant in Physiology

EARL BALL, Mechanical Assistant.

FELLOWS, 1910-11

ERNEST LYMAN SCOTT, S.B.

SHIRO TASHIRO, S.B.

ARTHUR LAWRIE TATUM, S.B.

INTRODUCTORY

Courses 12, 13, 14, 19, 20, and 21 are required for medical students. All special and research courses are open to students who have had sufficient preliminary training.

COURSES OF INSTRUCTION

JUNIOR COLLEGE COURSES

1 and 2. Introductory Physiology.—These courses are intended to familiarize the student with the elementary facts concerning the structure and functions of the human body. Students are urged to take both courses. No prerequisites are demanded for course 1. Course 1 is prerequisite to course 2.

*(1) Physiology of Blood, Circulation, Respiration, Digestion, Secretion, and Absorption. Mj. Autumn Quarter. Lectures: Three a week; laboratory: 4 hours a week. ASSISTANT PROFESSOR LINGLE. Repeated, Winter Quarter, ASSISTANT PROFESSOR LINGLE. Given Summer Quarter. DM. First Term.

*(2) Physiology of Metabolism, Muscles, the Nervous Systems, and Senses. A continuation of course 1. Mj. Winter Quarter. Lectures: three a week; laboratory: 4 hours a week. ASSISTANT PROFESSOR LINGLE and MR. LUSSKY. Repeated, Spring Quarter. Given Summer Quarter. DM. Second Term.

SENIOR COLLEGE COURSES

†12. Physiology of Blood, Circulation, and Respiration. Mj. Spring Quarter. Prerequisite: Physiological Chemistry. Laboratory fee, \$2.50. Lectures and recitation: M., Tu., W., 9:30-10:30, ASSOCIATE PROFESSOR CARLSON, DRs. WOELFEL, PIKE, AND BECHT. Laboratory: Sec. A.—Th., F., 2:00-5:00; Sec. B.—Th., F., 8:30-11:00, ASSOCIATE PROFESSOR CARLSON, DRs. WOELFEL, PIKE, AND BECHT, AND MR. LUCKHARDT.

†13. Physiology of Digestion, Metabolism, Absorption, Secretion, Muscles, and Heat. 1½Mj. Autumn Quarter. Prerequisite: Physiology 12. Laboratory fee, \$2.50. Lectures: M., Tu., S., 9:30; recitations: W., 9:30; S., 8:30, ASSOCIATE PROFESSOR CARLSON, DRs. WOELFEL, PIKE, AND BECHT. Laboratory: Sec. A.—Th., F., 8:30-11:30; Sec. B.—Th., F., 2:00-5:00, ASSOCIATE PROFESSOR CARLSON, DRs. WOELFEL, PIKE, AND BECHT, AND MR. LUCKHARDT.

*14. Physiology of the Nervous System and the Senses.—Mj. Winter Quarter. Prerequisite: Anatomy 17. Laboratory fee, \$2.50. Lectures: M., Tu., W., 11:00-12:00, ASSOCIATE PROFESSOR CARLSON, DRs. WOELFEL, PIKE, AND BECHT. Laboratory: Sec. A.—Th., F., 10:00-1:00; Sec. B.—Th., F., 2:00-5:00, ASSOCIATE PROFESSOR CARLSON, DRs. WOELFEL, PIKE, AND BECHT, AND MR. LUCKHARDT.

15. Special Physiology of Mammals.—Including the repetition of experiments not given in the general courses. Prerequisite: Physiology 12 or equivalent. Laboratory fee, \$1.25. ½Mj. Summer Quarter, Saturdays, 8:00-12:30, DR. BECHT. Repeated, Autumn Quarter.

17. Review Course in Physiology.—A review course in Physiology, mainly in the laboratory, designed especially for students entering with advanced standing from other medical schools. Mj. Summer Quarter, DR. WOELFEL.

19. Physiological Chemistry.—Chemistry of the foods, digestion, and the general chemistry of the cell. Prerequisite: General Chemistry and Qualitative Analysis; Elementary Organic Chemistry. Quantitative Analysis is strongly recommended. Laboratory fee, \$2.50. 1Mj. Winter Quarter. Lectures: M., Tu. Laboratory: Sec. A.—M., Tu., W., 11:00-1:00; Sec. B.—Th., F., S., 11:00-1:00. PROFESSOR MATHEWS AND MR. KOCH. Recitation: F., 8:30.

20. Metabolism and the Chemistry of the Urine.—Prerequisite: 19. Lectures: M., Tu., F., 8:30-9:30. Laboratory hours to be arranged. Laboratory fee, \$2.50. 1Mj. Autumn Quarter, PROFESSOR MATHEWS AND MR. KOCH.

21. Pharmacology.—Prerequisites: Physiology 12, 13, 14, 19, and 20B. Laboratory fee, \$3.75. 1½Mj. Spring Quarter. Lectures: M., W., F., 11:00-12:00; recitations: Tu., Th., 11:00-12:00, ASSOCIATE PROFESSOR KOCH. Laboratory: Sec. A.—hours to be arranged. Sec. B.—M., W., 2:00-5:00. Recitations: two a week; laboratory: 7 hours a week, ASSOCIATE PROFESSOR KOCH. Summer Quarter, 1909, ASSOCIATE PROFESSOR KOCH AND MR. ———.

PRIMARILY GRADUATE COURSES

16. Advanced Physiology of the Central Nervous System.—Prerequisite: Physiology 14. Mj. Spring Quarter, ASSOCIATE PROFESSOR CARLSON.

*The laboratory work on 1 and 2 may be taken as a major in the Summer Quarter by students already sufficiently qualified in the lecture work. The laboratory work in this quarter will be specially adapted to teachers.

† One of the courses 12, 13 or 14 will be repeated in the Summer Quarter. The choice will depend upon the requirements of the majority of the applicants.

18. General Physiology.—The general and comparative physiology of cells and tissues. Mj. Spring Quarter, DR. PIKE.

30. The Cells and Liquids of the Body in Their Physico-Chemical Relations.—Laboratory fee, \$2.50. Mj. Spring Quarter, PROFESSOR MATHEWS.

31. Special Physiology of the Circulation.—Laboratory fee, \$2.50. Mj. Autumn Quarter, ASSOCIATE PROFESSOR CARLSON.

32. Physiology of the Glands of Internal Secretion.—Laboratory fee, \$2.50. Mj. Winter Quarter, ASSOCIATE PROFESSOR CARLSON.

37. Methods of Quantitative Analysis in Physiological Chemistry as Applied to Plant and Animal Tissues.—Mj. Winter Quarter, ASSOCIATE PROFESSOR KOCH.

40. Seminar in Biochemistry, Pharmacology, and Experimental Therapeutics.—PROFESSOR A. P. MATHEWS, ASSOCIATE PROFESSOR KOCH, ASSISTANT PROFESSOR S. A. MATHEWS, and other members of the Department.

41. Seminar in Physiology.—Fortnightly. ASSOCIATE PROFESSOR CARLSON, ASSISTANT PROFESSOR LINGLE, DRs. WOEFEL, PIKE, AND BECHT, AND MR. GREER.

42. Research Work in Physiological Chemistry.—Mj or DMj. Throughout the year. PROFESSOR MATHEWS AND ASSOCIATE PROFESSOR KOCH.

43. Research Work in Pharmacology.—Mj or DMj. Throughout the year. PROFESSOR MATHEWS AND ASSOCIATE PROFESSOR KOCH.

44. Research Work in Physiology.—Mj or DMj. Throughout the year. ASSOCIATE PROFESSOR CARLSON AND OTHERS.

45. Research Work in Experimental Therapeutics.—Mj or DMj. Throughout the year. ASSISTANT PROFESSOR MATHEWS.

51. General and Comparative Physiology at the Marine Laboratory, at Woods Hole, Mass. Credit is given by the University of Chicago for courses taken at this Laboratory. DMj. Summer Quarter, PROFESSOR MATHEWS AND MR. PIKE.

IA. THE DEPARTMENT OF PSYCHOLOGY

OFFICERS OF INSTRUCTION

JAMES ROWLAND ANGELL, A.M., Professor and Head of the Department of Psychology; Director of the Psychological Laboratory.

HARVEY CARR, Ph.D., Assistant Professor of Experimental Psychology.

INTRODUCTORY

The courses in the Department are planned with three purposes in view: (1) to meet the needs of undergraduate students who desire an intelligent acquaintance with the general principles of Psychology and their bearing upon the larger social and scientific interests of modern life; (2) to afford adequate discipline for students who wish to employ Psychology as a basis for higher work in philosophy, education, and the social sciences; (3) to furnish a sound and symmetrical training for teachers, investigators, and specialists in the various branches of psychological science.

The importance to the physician of a knowledge of modern scientific Psychology, and the great utility of such knowledge in medical practice becomes daily more evident. The following courses are offered as adapted to the needs of medical students and practitioners:

COURSES OF INSTRUCTION

1. Elementary Psychology.—An introduction to the study of general psychology from the modern point of view. The course is required for the S.B. degree and is given every quarter. It is prerequisite for all other courses in psychology. Equivalent work done elsewhere will be accepted in lieu of this course as a preparation for more advanced courses. Several sections are often given in one quarter. See Quarterly Announcements for hours and instructors.

2, 3, 4. Experimental Psychology.—Lectures and laboratory work. The most important methods and results of experimental psychology will be studied. The course may be entered in any quarter, but the Department recommends the following of the numerical order of the courses where possible. 3Mj. Autumn, Winter, and Spring Quarters. Lectures: 2:00-3:00; laboratory: 2:00-4:00. Lectures and laboratory work occur on different days. ASSISTANT PROFESSOR CARR.

Course 2 will be devoted to the study of visual sensations, introduced by a general presentation of experimental methods. Autumn Quarter. Course 3 will be devoted to the study of cutaneous, kinaesthetic, gustatory, and auditory sensations. Winter Quarter. Course 4 will consider the application of experimental methods to the more complex processes of consciousness, e.g., attention, emotion, and volition. Spring Quarter.

10. Experimental Comparative Psychology.—Lectures and laboratory work in the study of animal mind. Prerequisite: one major of experimental psychology, or an equivalent in biological or physiological work. Mj. Spring Quarter. Hours to be arranged with instructor. ASSISTANT PROFESSOR CARR.

6. General Methods in Psychology.—This course is intended for students who do not plan to specialize in psychology, but who desire an acquaintance with psychological methods beyond that furnished by the ordinary introductory course. The various fields of psychology will be discussed and their application and technique will be illustrated as far as possible with apparatus, lantern slides, etc. Lectures and assigned readings, for Senior College students. Prerequisite: Introductory Psychology. Mj. Winter Quarter, 9:30, PROFESSOR ANGELL.

III. DEPARTMENT OF CHEMISTRY, MATERIA MEDICA, AND TOXICOLOGY*†

(INCLUDING MEDICAL PHARMACY; AND COURSES IN DEPARTMENT XX, CHEMISTRY, AT THE UNIVERSITY OF CHICAGO)

Department of Chemistry, Toxicology, Materia Medica, and Medical Pharmacy at Rush Medical College

OFFICERS OF INSTRUCTION

WALTER STANLEY HAINES, A.M., M.D., Professor and Head of the Department.

JEROME HENRY SALISBURY, A.M., M.D., Assistant Professor.

FRANK GRANT MASON, PH.G., M.D., Instructor.

Department of Chemistry, University of Chicago

OFFICERS OF INSTRUCTION

JOHN ULRIC NEF, PH.D., Professor and Head of the Department of Chemistry.

ALEXANDER SMITH, PH.D., Professor and Director of General and Physical Chemistry.

JULIUS STIEGLITZ, PH.D., Sc.D., Professor of Chemistry and Director of Analytical Chemistry.

*For courses in Physiological Chemistry see the Department of Physiology

†The courses in Physics recommended to undergraduate students preparing to study medicine are the following courses offered in the Department of Physics.

HERBERT NEWBY MCCOY, PH.D., Associate Professor of Physical Chemistry.
 THOMAS BRUCE FREAS, A.B., Instructor in Chemistry and Curator.
 EDITH ETHEL BARNARD, PH.D., Instructor in Chemistry.
 ERNEST ANDERSON, PH.D., Research Instructor in Chemistry.
 HERMANN IRVING SCHLESINGER, PH.D., Instructor in Chemistry
 ALAN W. C. MENZIES, S.B., Associate in Chemistry.
 HERMAN SPOEHR, PH.D., Assistant in Chemistry.
 ETHEL MARY TERRY, S.B., Assistant in Chemistry.
 LEROY SAMUEL WEATHERBY, S.B., Assistant in Chemistry.
 WALTER STANLEY HAINES, A.M., M.D., Professorial Lecturer on Toxicology.
 LAUDER WILLIAM JONES, PH.D., Professor of Chemistry, University of Cincinnati (Summer Quarter, 1910).

FELLOWS, 1910-11

JOHN WILLIAM EDWARD GLASFIELD, S.B.
 PAUL DAVID POTTER, A.B.
 CARL CHRISTMAN TODD, S.B.
 LEROY SAMUEL WEATHERBY, A.B.
 FRANKLIN LORENZO WEST, S.B.
 STANLEY DAVIS WILSON, A.B.

INTRODUCTORY

In this department are offered (1) courses which are suited for providing the preparation in the science of Chemistry that is indispensable to the study and practice of medicine; (2) courses which afford the student an opportunity for acquiring a more thorough and complete preparation for following intelligently the rapid advances in modern physiology and other medical subjects; and (3) courses which are indispensable for those who intend to assist in this advance by devoting themselves in part or exclusively to research in medical subjects, after completing their medical course.

*COURSES OF INSTRUCTION IN THE DEPARTMENT OF PHYSICS

JUNIOR COLLEGE COURSES

1. Elementary Physics.—A first course in the elements of Physics designed primarily for students who do not present entrance Physics. Mj. Autumn Quarter. Class work: M., Tu., W., 11:00-12:00; laboratory: Th., F., 11:00-1:00, ASSISTANT PROFESSOR GALE.

2. Elementary Physics.—A continuation of the preceding course, covering the subjects of electricity, sound, and light. Mj. Winter Quarter. Class work: M., Tu., W., 11:00-12:00; laboratory: Th., F., 11:00-1:00, ASSISTANT PROFESSOR GALE.

3. Mechanics, Molecular Physics, and Heat.—A general college course in mechanics, molecular physics, and heat, presented mainly from the experimental standpoint. 10 hours a week. Prerequisite: Entrance Physics or Physics 1 and 2. Mj. Summer Quarter: 8:00-10:00. Sec. A.—7:00-9:00, MR. CLO. Sec. B.—

*Courses 1, 2, 3, and 4 in Physics, or a full equivalent, are required for admission to Rush Medical College, and courses 1 and 2 prerequisite for the courses in Physics are fully described in the Circular of Information of the Colleges, University of Chicago, which may be had on application.

11:00-1:00, MR. MOORE. Autumn Quarter, Sec. A.—8:30-10:30, ASSISTANT PROFESSOR KINSLEY. Sec. B.—11:30-1:00, MR. CLO. Sec. C.—2:00-4:00, MR. CLO. Winter Quarter, 8:30-10:30, ASSOCIATE PROFESSOR MANN. Spring Quarter, 8:30-10:30, ASSOCIATE PROFESSOR MANN.

4. Electricity and Light.—A general college course in electricity, sound and light, presented mainly from the experimental standpoint, and involving the performance of eighteen laboratory exercises in electricity, four in sound, and six in light. Prerequisite: Physics 3. Mj. Summer Quarter, Sec. A.—10:30-12:30, MR. CLO. Sec. B.—1:30-3:30, ASSOCIATE PROFESSOR KINSLEY. Mj. Winter Quarter, Sec. A.—ASSOCIATE PROFESSOR MANN. Sec. B.—2:00-4:00, ASSOCIATE PROFESSOR MILLIKAN. Mj. Spring Quarter, 11:00-1:00, ASSOCIATE PROFESSOR KINSLEY.

5. Lecture Demonstration Course.—A course of lectures, demonstrations, and recitations supplementing courses 3 and 4 and completing a year's work in college Physics. Recent discoveries and development in Physics are given especial attention. 5 hours a week. Prerequisite: Physics 3 and 4. Mj. Summer Quarter, 10:30; Spring Quarter, 9:30, ASSISTANT PROFESSOR GALE.

REQUIREMENTS AND ELECTIVES IN CHEMISTRY

General Organic Chemistry and Qualitative Analysis are now a prerequisite to the medical courses proper. The necessary knowledge of the subject can be obtained from Chemistry 1, 2, 3, 4, and 6, or Admission Chemistry and 2S, 3S, 4, and 6.

Organic Chemistry, 33 and 34 (2Mj), Summer Quarter, may be substituted for course 4.

Students who are preparing for the study of Medicine, and who are candidates for a Bachelor's degree in the University of Chicago, are strongly recommended to take at least two majors more of Chemistry, viz., Quantitative Analysis 8 (1 Mj), and Physical Chemistry 60 and 61 (each $\frac{1}{2}$ Mj).

Candidates for a Bachelor's degree who expect to do research work in Physiology or allied medical subjects may with advantage elect further courses from the following: Organic Chemistry 30, 31, 32; Physical Chemistry 62; Special Methods of Quantitative Analysis 13-19.

COURSES OF INSTRUCTION

PRIMARILY FOR THE JUNIOR COLLEGES

1. Elementary General Chemistry, Inorganic, I.—Prerequisite: Preparatory Physics. DM. First Term, Summer Quarter. Classroom: 6 hours a week; laboratory: 12 hours a week, 1:30-4:30, MISS TERRY. Mj. Autumn Quarter. Classroom: 3 hours a week, 12:00; laboratory: 6 hours a week, PROFESSOR SMITH AND ———.

2. General Chemistry, Inorganic, II.—Continuation of course 1. Hours as in course 1. DM. Second Term, Summer Quarter, MISS TERRY. Mj. Winter Quarter, PROFESSOR SMITH AND ———.

3. General Chemistry, Inorganic, III.—Continuation of course 2. Hours as in course 1. Mj. Spring Quarter, PROFESSOR SMITH.

1, 2, 3 are consecutive courses. Separate credit is given for each, but students are not advised to take one course only. The aim of the continuous courses 1, 2, 3 will be to give a definite idea of the fundamental principles of Chemistry. The conception of chemical equilibrium and the modern theory of solutions are freely used. The lectures will be experimental to a considerable extent. The courses are designed to meet the wants, not only of those who wish to go deeper into Chemistry, but of all who wish to study the science as part of a liberal education. The lectures and class-

room work of 1, 2, and 3 may be taken by graduate students without the laboratory work or laboratory fee.

2S. General Chemistry, Inorganic.—Special course following Preparatory Chemistry. Prerequisite: Preparatory Chemistry and Physics. 1 unit each. DM. First Term, Summer Quarter. Classroom: 6 hours a week, 10:30; laboratory: 12 hours a week, 1:30–4:30, DR. MENZIES. Mj. Autumn Quarter. Classroom: 3 hours a week, 8:30; laboratory: 6 hours a week, ASSOCIATE PROFESSOR MCCOY.

3S. General Chemistry, Inorganic.—Continuation of course 2S. Hours as in 2S. DM. Second Term, Summer Quarter, DR. MENZIES. Mj. Winter Quarter, DR. MENZIES.

Course 2S in the autumn is especially designed for students offering preparatory Chemistry. Course 2 in the winter is a continuation of course 1, but may be entered by those having credit for admission chemistry.

4. Elementary Organic Chemistry.—Prerequisite: course 3 or 3S General Chemistry. Mj. Autumn Quarter. Classroom: 3 hours a week, 8:30; laboratory work: 6 hours a week, PROFESSOR STIEGLITZ. Mj. Spring Quarter, ———.

PRIMARILY FOR THE SENIOR COLLEGES

NOTE.—Courses 6, 7, 8, 9, 10, 11, and 13 are given in the analytical laboratories. The laboratories are open from 8:00 A. M. to 6:00 P. M. (Saturdays only to 1:00 P. M.) The hours of instruction provide for morning and afternoon sections and will be posted in the laboratory.

Courses 8 and 9 will count toward a Master's or the Doctor's degree when Chemistry is the *secondary* subject.

6. Qualitative Analysis.—Introductory course. Prerequisite: course 3 or 3S. Mj or DM. Summer Quarter. Classroom: 2 hours a week; laboratory: 8 or 16 hours a week; lectures, 2:00, DR. SCHLESINGER. Autumn Quarter, DR. SCHLESINGER. Winter Quarter, DR. SCHLESINGER. Spring Quarter, PROFESSOR STIEGLITZ.

7. Qualitative Analysis.—Continuation of course 6. Hours as in 6. Mj or DM. Summer, Autumn, and Winter Quarters, DR. SCHLESINGER. Spring Quarter, PROFESSOR STIEGLITZ.

Courses 6, 7, and 10 form a continuous course, which may be begun in any quarter. The aim of courses 6, 7, and 10 will be to train the student to do intelligent analytical work and to apply his knowledge of General and Physical Chemistry.

8. Quantitative Analysis.—Introductory course. Chiefly laboratory work in Gravimetric and Volumetric Analysis. Prerequisite: Qualitative Analysis (courses 6 and 7). Medical students will be admitted to the course after having taken course 6. Mj or DM. Laboratory: 8 or 16 hours a week; lecture: 1 hour. Autumn, Winter, and Spring Quarters, DR. BARNARD. First Term, Summer Quarter, DR. BARNARD; Second Term, DR. ANDERSON.

33. General Organic Chemistry.—Fatty and aromatic series. Prerequisite: General Chemistry and Qualitative Analysis. Lectures: 5 hours a week. Mj (or M, First Term). Summer Quarter, 8:30, PROFESSOR JONES.

34. Elementary Organic Preparations.—Laboratory work: 1:30–4:30, 9 hours a week. This course is arranged to accompany the lectures of course 17. It may be taken without the lectures by students who have had Organic Chemistry. Prerequisite: as in course 33. $\frac{1}{2}$ Mj or Mj. Summer Quarter PROFESSOR JONES.

25. The Chemistry of Drugs.—A course dealing with the physical and chemical properties of the chief medicinal drugs and their most important remedial preparations. 3 hours per week. $\frac{1}{2}$ Mj. Spring Quarter, Tu., Th., F., 4:00, PROFESSOR HAINES.

Numerous other courses are offered in the various departments of Chemistry which are fully described in the Circular of Information for the Colleges and of the Graduate Schools. Copies of these circulars may be had on application.

INSTRUCTION AT RUSH MEDICAL COLLEGE

51. Toxicology.—An advanced conference and laboratory course, dealing with the physical and chemical properties of the more important poisons, their effects

and treatment, and their detection. Conferences and laboratory: Hours to be arranged. 60 hours. .8Mj. PROFESSOR HAINES.

52. Clinical Chemistry.—A lecture, conference, and laboratory course, dealing with the urine, gastric contents, and other animal fluids, in their relation to disease, and embracing the composition of these fluids, the chemical and microscopical detection of abnormal constituents, and the interpretation of their clinical significance. Lectures, conferences, and laboratory: Tu., 11:00; Th., F., 10:00–12:00. 60 hours. .8Mj. PROFESSOR HAINES AND ASSISTANT PROFESSOR SALISBURY. [Not given in 1909–10.]

Course 52 may be counted as a part of the five and one-half required majors in Medicine.

53. Materia Medica, Medical Pharmacy, and Toxicology.—A lecture and conference course, dealing with the physical, chemical, and pharmaceutical properties of medicinal agents and their toxicology. Lectures and conferences: Tu., W., F., Sat., 9:00. 48 hours. .8Mj. Autumn Quarter, 1909; Spring Quarter, 1910, PROFESSOR HAINES.

53A. Materia Medica and Medical Pharmacy.—A laboratory course supplementary to course 53. Tu., W., F., S., 10:00–11:00. 48 hours. .4Mj. Autumn Quarter, 1908; Spring Quarter, 1909, PROFESSOR HAINES AND ASSISTANTS.

54. Principles of Prescribing.—A lecture and conference course, occupying two hours weekly for one term, on the principles of prescription-writing. Classes limited to twenty-four. First Term, Autumn Quarter, M., Th., 10:00, 12 hours. 4M. DR. MASON.

V. DEPARTMENT OF THERAPEUTICS AND PREVENTIVE MEDICINE

OFFICERS OF INSTRUCTION

WALTER STANLEY HAINES, A.M., M.D., *Ingals* Professor and Head of the Department of Therapeutics.

RALPH WALDO WEBSTER, M.D., Ph.D., Assistant Professor of Pharmacological Therapeutics.

HUGO AD OLDENBORG, G.D., Assistant Professor of Kinesitherapy.

ROBERT JAMES GAY, M.D., DANIEL ROBERTS BROWER, M.D., Instructors.

SARAH BENEDICT, MAY RUSSELL, Assistants.

INTRODUCTORY

The course in Hygiene and Sanitation is given to the Senior class and consists of lectures and conferences.

A course in the principles of Therapeutics is given to the Junior class three times a week throughout the Winter Quarter, by means of lectures and conferences. One of these hours is devoted chiefly to instruction in prescription-writing from a therapeutic standpoint. The work is continued during the Spring Quarter by means of a conference course.

A course in Practical Therapeutics is offered in the Junior year in which the student is personally taught manipulative methods, including Massage, Electricity, Hydrotherapy, etc., and the practical care of the sick.

It is intended that this department shall supplement the work of the Department of Medicine by dealing more in detail with the technique of treatment.

COURSES OF INSTRUCTION

JUNIOR YEAR

1. **Therapeutics.**—A lecture and prescription-writing course. Prerequisite: *Materia Medica* (Course III-53). Lectures: M., F., 8:00; prescription-writing: W., 8:00. .6Mj. Winter Quarter, ASSISTANT PROFESSOR WEBSTER AND ASSOCIATE PROFESSOR TIEKEN.

2. **Therapeutics.**—A conference course on the therapeutic management of special diseases. Prerequisite: course 1. .4Mj. Summer and Spring Quarters, Tu., Th., 8:00, ASSOCIATE PROFESSOR TIEKEN AND DR. GAY.

3. **Practical Therapeutics.**—A laboratory and practical course in massage, hydrotherapy, aerotherapy, electrotherapy, cooking for the sick, and the general management of the sick, with clinical application. Given to the class in sections. Tu., Th., 4:00-6:00 .4Mj. Autumn and Winter Quarters, ASSISTANT PROFESSOR OLDENBORG, DR. BROWER, AND MISSES BENEDICT AND RUSSELL.

4. **Prescription-Writing.**—An advanced therapeutic course in prescription-writing. Prerequisite: course 1. .2Mj. Summer Quarter, Th., 8:00, DR. MASON.

SENIOR YEAR

5. **Hygiene and Sanitation.**—A lecture and conference course. .4Mj. Autumn Quarter, Tu., Th., 8:00, DR. GAY.

7. **Kinesitherapy.**—A practical course in Kinesitherapy, with demonstrations, including massage, Swedish movements, and Frenkel re-educative exercises, the students themselves having an opportunity to practice these forms of treatment on patients sent from the other departments of the dispensary. .6Mj. Autumn, Winter, and Spring Quarters, M., W., F., 8:00-9:00, ASSISTANT PROFESSOR HUGO AD OLDENBORG.

VI. THE DEPARTMENT OF PATHOLOGY AND BACTERIOLOGY

(AT THE UNIVERSITY DEPARTMENT XXVIII)

OFFICERS OF INSTRUCTION

LUDVIG HEKTOEN, M.D., Professor of Pathology, and Head of the Department of Pathology and Bacteriology.

EDWIN OAKES JORDAN, PH.D., Professor of Bacteriology.

HARRY GIDEON WELLS, PH.D., M.D., Associate Professor of Pathology.

NORMAN MACLEOD HARRIS, M.B., Assistant Professor of Bacteriology.

PRESTON KYES, A.M., M.D., Assistant Professor of Experimental Pathology.

EDWARD VAIL LAPHAM BROWN, M.D., Instructor in the Pathology of the Eye.

PAUL GUSTAV HEINEMANN, PH.D., Assistant in Bacteriology.

MARY HEFFERAN, PH.D., Assistant and Curator of the Bacteriological Museum.

HELEN FRANCES CRAIG, A.B., S.B., Laboratory Assistant in Pathology.

JAMES HERBERT MITCHELL, S.B., Research Assistant in Chemical Pathology.

HARRIET F. HOLMES, A.B., Special Instructor in Pathological Technique.

JAMES J. TERRILL, M.D., Professor of Pathology, University of Texas (Summer Quarter, 1910).

AT RUSH MEDICAL COLLEGE

EDWIN RAYMOND LE COUNT, M.D., Professor of Pathology.

GEORGE HOWITT WEAVER, M.D., Associate Professor of Pathology.

DAVID JOHN DAVIS, M.D., Assistant Professor of Pathology.

WARREN H. HUNTER, M.D., Assistant Professor of Medico-legal Pathology.

CHARLES PATTON CLARK, M.D., Assistant in Pathology.

FLOYD BURKE RILEY, M.D., Fellow in Pathology.

FELLOWS AT THE UNIVERSITY OF CHICAGO

1910-11

JOSIAH JOHN MOORE (Pathology).

ROSWELL TALMAGE PETTIT, S.B. (Pathology).

INTRODUCTORY

The Department offers the required courses in Pathology and Bacteriology in the curriculum of Medicine, as well as advanced courses for those desiring a more extended knowledge of the subjects, and for those wishing to qualify themselves for research.

At the University of Chicago the Department possesses all necessary equipment for pathologic and bacteriologic work. There is access to a good museum for teaching purposes, and to complete files of the important serial publications.

For each major or double minor course requiring laboratory work the laboratory fee is \$2.50.

The Pathological Laboratory of Rush Medical College possesses all necessary equipment for pathologic and bacteriologic work. The laboratory has a good museum. Adjacent hospitals furnish abundant material for demonstration, advanced work, and research.

COURSES OF INSTRUCTION

PATHOLOGY

SENIOR COLLEGE COURSES

1A. General Pathology and Pathological Histology.—A practical laboratory course in General Pathology, supplemented by experiment, by the study of fresh and museum specimens, and by recitations in General Pathology. Prerequisite: Histology, Bacteriology, General Physiology, Human Anatomy, and Physiological Chemistry. 108 hours. 1Mj. Winter Quarter. Recitations: Three hours a week; laboratory: Six hours a week. ASSOCIATE PROFESSOR WELLS AND ASSISTANTS.

1B. General Pathology and Pathological Histology.—Continuation of 2A in Spring Quarter. 108 hours. Mj. ASSOCIATE PROFESSOR WELLS AND ASSISTANTS. (A and B will be given in the Summer Quarter, 1910, as DMj.) ASSISTANT PROFESSOR KYES AND DR. TERRILL.

GRADUATE COURSES

2. Advanced Pathology.—Open to a limited number of students who have credit in General Pathology. Pathological technique and autopsies. Weekly conferences. Hours arranged for each student. Mj. Autumn, Winter, and Spring Quarters. ASSOCIATE PROFESSOR WELLS.

3. Research in Pathology.—Open to a limited number of specially qualified students and graduates in medicine. Hours to be arranged for each student. Mj or DMj. Each Quarter, PROFESSOR HEKTOEN AND ASSOCIATE PROFESSOR WELLS.

4A. Special Pathology.—A course of recitations with demonstrations of anatomical specimens, on the pathological processes occurring in the different viscera. Prerequisite: General Pathology. Hours to be arranged $\frac{1}{2}$ Mj. Summer Quarter, ASSOCIATE PROFESSOR WELLS. [Not given in 1910.]

4B. Laboratory Course.—Supplementary to 4A. Hours arranged for each student. $\frac{1}{2}$ Mj. Summer Quarter, ASSOCIATE PROFESSOR WELLS. [Not given in 1910.]

6. Pathology of the Eye.—Special advanced Pathology for practicing physicians and advanced students. Hours to be arranged. DM. First Term, Summer Quarter, DR. BROWN.

7A. Research in Experimental Pathology.—Open to a restricted number of qualified investigators. Mj or DMj. Autumn, Winter and Spring Quarters, ASSISTANT PROFESSOR KYES.

7B. Seminar in Experimental Pathology.—Conferences to parallel the current investigations in the laboratory of Experimental Pathology. Mj. Autumn, Winter, and Spring Quarters, ASSISTANT PROFESSOR KYES.

8. Pathological Technique.—Open to a limited number of students. Mj. Autumn Quarter, MISS HOLMES.

13. Course in Immunity.—Immunization of animals. Cytolysis (including hemolysis and bacteriolysis), agglutination, toxins and antitoxins, etc. An experimentation and conference course. Prerequisite: Bacteriology and General Pathology. Hours to be arranged. Mj. Autumn Quarter,——

BACTERIOLOGY

SENIOR COLLEGE COURSES

21. Pathogenic Bacteria.—General aspects of Bacteriology, designed primarily for medical students. 120 hours. 1½Mj. Summer Quarter, 1:30-4:30, ASSISTANT PROFESSOR HARRIS AND DR. HEINEMANN. Repeated in Autumn Quarter. Sec. A.—daily, 2:00-4:00; Sec. B.—daily, 11:00-1:00, PROFESSOR JORDAN, ASSISTANT PROFESSOR HARRIS AND DR. HEINEMANN.

21B. General Bacteriology.—For non-medical students. Mj. Spring Quarter, DR. HEINEMANN.

23. Advanced Bacteriology.—Open to a limited number of specially prepared students and graduates in medicine. Lectures on specially selected topics. Repeated each quarter. Hours to be arranged. Mj. PROFESSOR JORDAN AND ASSISTANT PROFESSOR HARRIS.

24. Public Hygiene.—The applications of Bacteriology to municipal hygiene. Water supply, food supply, sewage disposal, etc. ½Mj. Spring Quarter, PROFESSOR JORDAN.

GRADUATE COURSES

25. Research in Bacteriology.—Mj or DMj. Each quarter, PROFESSOR JORDAN AND ASSISTANT PROFESSOR HARRIS.

26. Sanitary Aspects of Milk Supply.—Practice in laboratory methods of the examination of milk. Limited to six students. Prerequisite: Chemistry and Bacteriology. Hours to be arranged. Mj. Winter Quarter, ASSISTANT PROFESSOR HARRIS.

27. Sanitary Water Analysis.—Chemical, bacterial, and microscopical methods. Lectures and laboratory work. Prerequisite: Chemistry 8 and Bacteriology. Mj. Winter Quarter, DR. HEINEMANN.

JUNIOR AND SENIOR COURSES (WEST SIDE)

12. Special Pathologic Anatomy and Histology.—Limited to twenty-five students. Practical instruction is given in the methods of making post-mortem examinations and of recording the results. The student studies and describes the gross and microscopic appearance of diseased organs and tissue. Bacteriologic and chemical methods and experiments are employed whenever indicated, and the clinical relations (pathologic physiology) of the morbid conditions are emphasized. Prerequisite: courses Pathology 2A and 2B. Daily 2:00-4:00, except Saturday, and autopsies two hours weekly. 120 hours. Mj. Summer, Autumn, Winter, and Spring Quarters, PROFESSOR LECOUNT AND DR. DAVIS.

17. Advanced Laboratory Work and Research in Pathology.—Open to a limited number of specially qualified students and graduates in medicine. Hours arranged for each student. Credit given based on time and quality of work. Throughout the year. PROFESSORS HEKTOEN AND LECOUNT AND ASSISTANT PROFESSOR DAVIS.

VII. DEPARTMENT OF MEDICINE

OFFICERS OF INSTRUCTION

INTERNAL MEDICINE

FRANK BILLINGS, S.M., M.D., Professor and Head of the Department of Medicine.

NORMAN BRIDGE, A.M., M.D., Emeritus Professor of Medicine.

HENRY BAIRD FAVILL, M.D., Professor of Medicine.

JAMES BRYAN HERRICK, A.M., M.D., Professor of Medicine.

BERTRAM WELTON SIPPY, M.D., Professor of Medicine.

THEODORE TIEKEN, M.D.; JOSEPH LEGGETT MILLER, M.D.; SAMUEL ROBERT SLAYMAKER, M.D.; JOSEPH ALMARIN CAPPS, A.M., M.D., Associate Professors of Medicine.

JEROME HENRY SALISBURY, A.M., M.D.; BIRD MCPHERSON LINNELL, M.D.; GEORGE WASHINGTON HALL, A.M., M.D.; JAMES ALEXANDER HARVEY, M.D.; WILLIAM LOUIS WILSON, S.M., M.D.; LUDWIG MANHEIMER LOEB, M.D.; JOHN LAURENCE JACQUE, M.D.; ALEXANDER COBURN SOPER, JR., M.D.; JAMES MURRAY WASHBURN, M.D.; MOSES MILTON PORTIS, M.D.; JOSEPH C. FRIEDMAN, M.D., Assistant Professors of Medicine.

CHARLES JOSEPH WHALEN, M.D., Assistant Professor of Medicine (State Medicine).

RALPH WALDO WEBSTER, M.D., PH.D.; ALEXANDER FRANCIS STEVENSON, M.D.; MORELY DE COSTA BATES, M.D.; EDWARD BUEL HUTCHINSON, M.D.; EDWARD CARL ROSENOW, M.D.; ROLLIN TURNER WOODYATT, M.D.; WILBER E. POST, M.D.; ERNEST EDWARD IRONS, M.D.; JOHN RITTER, M.D.; ISIDORE BERNHARD DIAMOND, M.D.; ARTHUR ATWELL SMALL, M.D.; LEON BLOCH, M.D.; ELLIS KIRK KERR, M.D.; SIDNEY STRAUSS, M.D.; KARL K. KOESSLER, M.D.; CHRISTIAN DENCKER, M.D., Instructors in Medicine.

MICHAEL LEO GALLAGHER, M.D.; MARTIN INGEMANN OLSEN, M.D.; WILLIAM H. WALKER; WILLIAM LOWRIE PORTERFIELD, M.D., Associates in Medicine.

FINDLEY JOHN, M.D.; GEORGE HALPERIN, M.D.; ROBERT STANTON McCAUGHEY, M.D.; THOMAS HARRIS BOUGHTON, M.D.; WALTER WILE HAMBURGER, M.D.; ARTHUR FREDERIC BEIFELD; DAVID C. STRAUS; FREDERICK OLAF FREDERICKSON, Assistants in Medicine.

HOMER KING NICOLL, A.B., M.D., *Dane Billings* Fellow in Medicine.

PEDIATRICS

JOHN MILTON DODSON, A.M., M.D., Professor of Medicine (Pediatrics).

ALFRED CLEVELAND COTTON, A.M., M.D., Professor of Medicine (Pediatrics).

FRANK SPOONER CHURCHILL, M.D., Associate Professor of Medicine (Pediatrics).

JAMES WARREN VANDERSLICE, M.D.; JOSEPHINE ESTABROOK YOUNG, M.D.;

JULIA DYER MERRILL, M.D.; SAMUEL JOHNSON WALKER, M.D.; HENRY F. HELMHOLZ, M.D., Assistant Professors of Medicine (Pediatrics).

FRANK WESLEY ALLIN, M.D.; JOHN CHARLES WEST, M.D.; CLIFFORD G. GRULEE, A.M., M.D., Instructors in Medicine (Pediatrics).

ISAAC JOSEPH FRANKLIN, M.D.; GRACE HARRIET CAMPBELL, M.D.; MARIA BLAIR MAVER, M.D.; HERBERT GAINES VAUGHAN, M.D., Associates in Medicine (Pediatrics).

LEON MAURICE BOWES, M.D.; GRACE MEIGS, M.D., Assistants in Medicine (Pediatrics).

MAX MALKIN, M.D.; ERNEST CLEVERDON, M.D.; GUSTAVE LEONARD KAUFMANN, M.D.; CLARENCE L. HEATON, M.D., Clinical Assistants in Medicine (Pediatrics).

NERVOUS AND MENTAL DISEASES

SIDNEY KUH, M.D.; THOR ROTHSTEIN, M.D., Associate Professors of Medicine (Nervous and Mental Diseases).

JAMES CORNELIUS GILL, M.D.; PETER BASSOE, M.D., Assistant Professors of Medicine (Nervous and Mental Diseases).

DANIEL ROBERTS BROWER, M.D., Instructor in Medicine (Nervous and Mental Diseases).

SIGMUND KRUMHOLZ, M.D.; MAURICE BRAUDE, M.D., Associates in Medicine (Nervous and Mental Diseases).

EDWARD W. BODMAN, M.D., Assistant in Medicine (Nervous and Mental Diseases).

INTRODUCTORY

In this department instruction is given in the topics usually comprised under the terms, Internal Medicine, Pediatrics, and Neurology. The abundant clinical material in the Central Free Dispensary, the Presbyterian, Cook County and other hospitals, makes it possible to give instruction largely by object-lessons—the actual study of disease in the living patient by students arranged in small groups. The courses comprise (A) a series of clinics to small groups of students in the Cook County and Presbyterian Hospitals, (B) arena clinics at Rush Medical College, (C) courses in physical and laboratory diagnosis, (D) a protracted course in the Central Free Dispensary, and (E) other lecture, conference, and clinical courses in the several topics. Each student should so elect his work in this department as to secure a comprehensive knowledge of the whole field of general medicine, including Neurology and Pediatrics.

There are required for graduation courses 2, 5, and 6, and in addition thereto at least .8 major in Internal Medicine, .4 major in Pediatrics, and .4 major in Nervous and Mental Diseases.

COURSES OF INSTRUCTION

INTERNAL MEDICINE

JUNIOR YEAR

2. **Physical Diagnosis.**—A conference and practical course on the methods of physical exploration, chiefly of the normal body. M., W., F., 8:00. 36 hours. 4.Mj. Autumn Quarter, ASSOCIATE PROFESSOR TIEKEN, ASSISTANT PROFESSOR WASHBURN, AND DRs. HUTCHINSON, BATES, ROSENOW, WOODYATT, AND RITTER.

3. **Clinic and Conference at the Cook County Hospital.**—Topics: Autumn Quarter: Constitutional Diseases, Blood, Ductless Glands, and Kidney; Winter Quarter: Infectious Diseases; Spring Quarter: Respiratory Diseases. Limited to ten students. Th., 9:00–11:00; S., 8:00–9:00. 36 hours. .4Mj. ASSOCIATE PROFESSOR SLAYMAKER.

3A. Clinic and Conference Course at the Cook County Hospital.—Topics: Summer Quarter: Diseases of the Heart and Bloodvessels; Autumn Quarter: Diseases of the Gastro-intestinal Tract, Liver, and Pancreas; Spring Quarter: Constitutional Diseases and Diseases of the Blood and Ductless Glands. Limited to ten students. W., 2:00-4:00; M., 5:00-6:00. 36 hours. .4Mj. ASSOCIATE PROFESSOR MILLER.

3B. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn Quarter: Respiratory Diseases; Winter Quarter: Diseases of the Gastro-intestinal Tract, Liver, and Pancreas; Spring Quarter: Constitutional Diseases, Blood, Ductless Glands, and Kidney. Limited to ten students. M., 5:00-6:00; Tu., 2:00-4:00. 36 hours. .4Mj. ASSOCIATE PROFESSOR CAPPS.

3C. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn Quarter: Constitutional Diseases, Blood, Ductless Glands, and Kidney; Winter Quarter: Diseases of the Heart and Bloodvessels; Spring Quarter: Infectious Diseases. Limited to ten students. M., 9:00-11:00; S., 8:00-9:00. 36 hours. .4Mj. ASSOCIATE PROFESSOR TIEKEN.

3D. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn Quarter: Diseases of the Nervous System; Spring Quarter: Diseases of the Circulatory and Renal Systems. Limited to ten students. F., 9:00-11:00; S., 8:00-9:00. 36 hours. .4Mj. ASSISTANT PROFESSOR HALL.

3E. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn Quarter: Diseases of the Heart and Bloodvessels; Winter Quarter: Constitutional Diseases, Blood, Ductless Glands, and Kidney; Spring Quarter: Diseases of the Alimentary Tract, Liver, and Pancreas. Limited to ten students. M., 5:00-6:00; W., 2:00-4:00. 36 hours. .4Mj. ASSISTANT PROFESSOR PORTIS.

3F. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn Quarter: Infectious Diseases; Winter Quarter: Diseases of the Heart and Bloodvessels; Spring Quarter: Nervous Diseases. Limited to ten students. W., 11:00-1:00; S., 8:00-9:00. 36 hours. .4Mj. ASSISTANT PROFESSOR LOEB.

3G. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn Quarter: Respiratory Diseases; Winter Quarter: Constitutional Diseases and Diseases of the Blood, Ductless Glands, and Kidney; Spring Quarter: Diseases of the Alimentary Tract, Liver, and Pancreas. Limited to ten students. M., 5:00-6:00; Th., 4:00-6:00. 36 hours. .4Mj. ASSISTANT PROFESSOR FRIEDMAN.

3H. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn Quarter: Diseases of the Heart and Bloodvessels; Winter Quarter: Respiratory Diseases; Spring Quarter: Infectious Diseases. Limited to ten students. S., 8:00; S., 9:00-11:00. 36 hours. .4Mj. DR. BLOCH.

3J. Clinic and Conference Course at the Cook County Hospital.—Topics: Summer Quarter: Infectious Diseases; Autumn Quarter: Diseases of the Heart and Bloodvessels; Spring Quarter: Diseases of the Respiratory Tract. Limited to ten students. S., 8:00-9:00; Tu., 9:00-11:00. 36 hours. .4Mj. DR. KERR.

4. Conference Course on the diseases less commonly seen in this region. Summer and Spring Quarters. M., W., F., 8:00. 36 hours. .6Mj. DR. STEVENSON, DR. IRONS, OR DR. KOESSLER.

5. Laboratory Diagnosis.—A laboratory course in the chemical, microscopic, and bacteriologic examination of blood, urine, sputum, gastric contents, feces, secretions, exudates, etc., and their pathologic and clinical significance, especial attention being given to their bearing upon diagnosis. Each class limited to 25 students. 72 hours. Summer Quarter: M., Th., F., 9:00-11:00; Autumn Quarter: Tu., W., S., 9:00-11:00; Winter Quarter: Sec. A.—M., W., Th., 9:00-11:00; Sec. B.—Tu., F., S., 9:00-11:00. .6Mj. ASSISTANT PROFESSOR WASHBURN AND DRs. STEVENSON, ROSENOW, STRAUSS, AND KOESSLER.

SENIOR YEAR

6. A Clinical Course.—In the Central Free Dispensary each quarter. In the departments of Internal Medicine and of Pediatrics, conducted by members of the

department. Prerequisite: Physical and Laboratory Diagnosis and at least .8 majors of clinical work. In sections, one quarter for each section. Daily 9:00-11:00. 144 hours. 1.2 Mj.

6A. Clinical Course in the Presbyterian Hospital.—Two senior students will be assigned to each of the four medical services in the Presbyterian Hospital, and two to the service in Diseases of Children, for a period of one month, to serve daily as clinical clerks and laboratory assistants. Each student so assigned will serve in the clinical laboratory of the hospital daily from 8:00 to 9:00, and will make rounds with the interne at some other period of the day to be agreed upon. Approximately 60 hours. .3Mj.

8. Clinical Medicine.—A clinical and conference course in general medicine with special reference to Diseases of the Stomach and Intestines. M., Th., 9:00-11:00. 48 hours. .4Mj. Summer Quarter, ASSISTANT PROFESSOR JACQUE.

9. Clinical Medicine.—Clinical and conference course in medicine related to General Diseases, including Blood and Ductless Glands, and with special reference to Applied Therapeutics. Prerequisite: courses III, 53 and 53A (Materia Medica). M., Th., 9:00-11:00. 48 hours. .4Mj. Autumn Quarter, PROFESSOR BILLINGS.

9A. Clinical Medicine.—A clinical and conference course in medicine with special reference to Diseases of the Nervous System. M., Th., 9:00-11:00. 48 hours. .4Mj. Winter Quarter, ASSOCIATE PROFESSOR ROTHSTEIN.

10. Clinical Medicine.—A clinical and conference course in medicine with special reference to Infectious Diseases and to Applied Therapeutics. Prerequisite: courses III, 53 and 53A (Materia Medica). M., Th., 9:00-11:00. 48 hours. .4Mj. Spring Quarter, PROFESSOR BILLINGS.

11. Clinical Medicine.—A clinical and conference course in medicine. Summer Quarter: General Diseases, including Blood and Ductless Glands. DR. IRONS.

11, F. Autumn Quarter: Diseases of the Circulatory and Renal Systems. PROFESSOR HERRICK.

11, W. Winter Quarter: Diseases of the Respiratory System. PROFESSOR HERRICK.

11, S. Spring Quarter: Diseases of the Nervous System and Psychiatry. ASSOCIATE PROFESSORS ROTHSTEIN AND KUH AND ASSISTANT PROFESSORS HALL AND BASSOE.

Tu., F., 9:00-11:00. Tu., at the Cook County Hospital; F., in the College Amphitheater. Each course 48 hours. .4Mj.

13. Clinical Medicine.—A clinical and conference course in medicine. Summer Quarter: Diseases of the Nervous System. ASSISTANT PROFESSOR BASSOE.

13, F. Autumn Quarter: Infectious Diseases. PROFESSOR SIPPY.

13, W. Winter Quarter: Diseases of the Alimentary Tract, Liver, and Pancreas. PROFESSOR SIPPY.

13, S. Spring Quarter: Diseases of the Heart and Kidney. W., S., 9:00-11:00. W., Cook County Hospital; S., College Amphitheater. Each course 48 hours. .4Mj. PROFESSOR SIPPY AND ASSISTANT PROFESSOR LOEB.

25. Diseases of the Stomach.—A clinical and laboratory course, limited to twelve students. About three-fourths of the course will be devoted to the practical examination of patients in the Central Free Dispensary, and the remainder to Laboratory investigation. Hours to be announced. .4Mj. Autumn, Winter, and Spring Quarters, ASSISTANT PROFESSOR PORTIS.

28. Medical Tuberculosis.—A clinical and conference course in the medical, and especially in the sociologic measures, for the prophylactic and curative treatment of tuberculosis. Students taking this course will assist the physician in charge of the Rush Medical College station of the Chicago Tuberculosis Institute, and will also visit with him, or the visiting nurse, the homes of the tubercular patients. Limited to two students. W., S., 12:00-2:00. .4 to .6Mj. DR. JOHN RITTER AND ASSISTANTS.

33. Variola (Extra-mural).—A clinical course in variola, at the Chicago Isolation Hospital, at intervals as material is afforded. Classes limited to ten each. .2M. ASSOCIATE CLINICAL PROFESSOR HEMAN SPALDING.

34. A Course in Clinical Medicine (Extra-mural).—At St. Luke's Hospital. Limited to small groups. W., 4:00-6:00. 24 hours. .2Mj. Winter Quarter PROFESSOR HENRY B. FAVILL.

35. A Clinical Course in General Medicine (Extra-mural).—At the West Side Hebrew Dispensary. Each course extends over six weeks. Limited to eight students each term. W., S., 4:00-6:00. 24 hours. .4M. Winter and Spring Quarters, DR. ALBERT W. SCHRAM.

36. Clinical Diagnosis Course.—A course in clinical instruction, including all necessary chemical, microscopic, and bacteriologic examinations of blood, urine, sputum, gastric contents, feces, etc. Limited to six students. Summer and Spring Quarters, Tu., 9:00-11:00; Autumn Quarter, Tu., Th., 8:00-9:00. 24 hours. .3Mj. ASSISTANT PROFESSOR LINNELL.

37. Diseases of Metabolism.—A conference course on the diseases of metabolism with special reference to their physiological chemistry. Tu., F., 9:00-11:00. 48 hours. .4Mj. Autumn and Spring Quarters, DR. WEBSTER.

38. Technique of Diagnosis.—A clinical and conference course in the Central Free Dispensary. Topics: (a) Autumn Quarter—General Symptomatology; (b) Winter Quarter: Special Symptomatology; Symptoms and Syndromes of Diseases of the Gastro-intestinal Tract, Pancreas, and Liver; (c) Symptoms and Syndromes of Diseases of the Cardio-Vascular System. M., W., F., 8:00. 36 hours. .6Mj. DR. KARL K. KOESSLER.

39. Diseases of the Gastro-intestinal Tract, Liver, and Pancreas.—A practical laboratory and clinical course for practitioners. The particular aim of this course is (1) to give individual training in the modern laboratory methods of the examination of stomach contents and feces; (2) to insure continual repetition of these methods in the hands of the men taking the course until a certain accuracy of technique has been developed; (3) to show the clinical application of these methods to groups of selected cases of gastro-intestinal disease, and to teach the conclusions which may be logically deduced in regard to diagnosis and therapy. Course limited to 4 to 8 men. Time: 4 periods each week, of 2 hours each, for 4 weeks. Tuition: \$25.00. WALTER W. HAMBURGER.

PEDIATRICS

1. The Anatomy, Physiology, and Hygiene of Infancy.—A recitation and conference course. W., F., 8:00. 24 hours. .4Mj. Summer and Winter Quarters, DR. WEST.

7. The Disorders of Nutrition in Infancy and Childhood.—A clinical course, Tu., F., 9:00-11:00. 48 hours. .4Mj. Summer Quarter, PROFESSOR COTTON.

12. The Infectious Diseases of Infancy and Childhood.—A clinical and conference course. Tu., F., 9:00-11:00. 48 hours. .4Mj. Autumn Quarter, PROFESSOR DODSON.

15. Diseases of the Respiratory Tract of Infancy and Childhood.—A lecture and clinical course. Winter Quarter. Tu., F., 9:00-11:00. 48 hours. .4Mj. PROFESSOR COTTON.

16. Clinical Diagnosis of Infancy and Childhood.—A recitation and conference course, limited to twenty-four students. Second Term, Winter Quarter. M., W., F., 8:00. 12 hours. 4M. ASSISTANT PROFESSOR VANDERSLICE.

17. Pediatrics.—A bedside course at the Children's Memorial Hospital. Limited to eight students. Topics: Autumn Quarter, Infant Feeding; Winter and Spring Quarters, Infectious Diseases. W., 2:00-4:00. 24 hours. 2Mj. Students registering for this course should also register for course VIII, 27. ASSISTANT PROFESSOR CHURCHILL.

17A. Pediatrics.—A clinical course at Cook County Hospital. .2Mj. Topics: Autumn Quarter, Infant Feeding; Winter and Spring Quarters, Infectious Diseases. S., 2:00-4:00. ASSOCIATE PROFESSOR CHURCHILL.

18. Dietetics of Infancy.—A laboratory and conference course. M., W., F., 8:00. 36 hours. .4Mj. Autumn Quarter, ASSISTANT PROFESSOR HELMHOLZ; Spring Quarter, DR. GRULEE.

19. The Nervous Diseases of Infancy and Childhood.—A clinical and lecture course. Tu., F., 9:00-11:00. 48 hours. .4Mj. Spring Quarter, PROFESSOR DODSON.

20. The Commoner Diseases of Infancy, including Rickets, Scurvy, Congenital Syphilis, Tuberculosis, Broncho-pneumonia, Cystitis, etc.—A clinical and conference course, Central Free Dispensary. Tu., Th., 8:00-9:00. 24 hours. .4Mj. Autumn Quarter, DR. GRULEE; Spring Quarter, ASSISTANT PROFESSOR HELMHOLZ.

24. Pediatric Clinic.—A clinical course at the Children's Memorial Hospital. Limited to eight students. .2Mj. Autumn, Winter, and Spring Quarters, Tu., 2:00-4:00. 24 hours. Students taking this course should also register for course VIII, 28. ASSISTANT PROFESSOR WALKER.

30. Course in Clinical Pediatrics (Extra-mural).—At the West Side Hebrew Dispensary. M., Th., 4:00-6:00. 24 hours. .4M. Autumn and Spring Quarters; each section one term, DR. MAY MICHAEL.

31. Course in Clinical Pediatrics (Extra-mural).—At the West Side Hebrew Dispensary. W., S., 2:00-4:00. 24 hours. .4M. Autumn and Spring Quarters; each section one term, DR. FERGUSON.

NERVOUS AND MENTAL DISEASES

31. Diseases of the Nervous System.—Clinical and conference course at the Cook County Hospital. Limited to ten students. Autumn Quarter, S., 9:00-10:00; W., 9:00-11:00. 36 hours. .4Mj. ASSISTANT PROFESSOR BASSOE.

See also courses 3D (Autumn Quarter), 3F (Spring Quarter), 9A, 11S, and 13.

14. Dispensary Clinic in Diseases of the Nervous System.—9:00-11:00. 48 hours. Sec. A.—M., Th., ASSISTANT PROFESSOR GILL; Sec. B.—Tu., F., ASSOCIATE PROFESSOR ROTHSTEIN; Sec. C.—W., S., ASSISTANT PROFESSOR BASSOE AND DR. KRUMHOLZ.

22. Mental or Nervous Diseases.—A clinical and conference course at the Cook County Hospital. Topic: Autumn Quarter: Insanity. Conference: M., 5:00, Rush Medical College; Clinic: W., 4:00-6:00, Cook County Hospital. 36 hours. .4Mj. Spring Quarter. Topic: Diseases of the Brain and Spinal Cord. Conference: M., 5:00, Rush Medical College; Clinic: Th., 4:00-6:00, Cook County Hospital. 36 hours. .4Mj. ASSOCIATE PROFESSOR KUH.

23. Nervous Diseases.—A clinical and conference course at the Cook County Hospital. Topic: Summer Quarter: Diseases of the Peripheral Nerves and Functional Nervous Diseases. Conference: M., 5:00, Rush Medical College; Th., 4:00-6:00. 36 hours. .4Mj. Topic: Winter Quarter: Diseases of the Brain and Spinal Cord. Hours the same as for the Summer Quarter. .4Mj. ASSISTANT PROFESSOR BASSOE.

VIII. DEPARTMENT OF SURGERY

OFFICERS OF INSTRUCTION

ARTHUR DEAN BEVAN, M.D., *Nicholas Senn* Professor and Head of the Department of Surgery.

DAVID WILSON GRAHAM, A.M., M.D., Clinical Professor of Surgery.

WILLIAM THOMAS BELFIELD, M.D., Professor of Surgery (Genito-urinary).

JOHN RIDLON, A.M., M.D., Professor of Surgery (Orthopedic).

CHARLES AUBREY PARKER, M.D.; DEAN DEWITT LEWIS, M.D.; LAWRENCE RYAN, M.D.; CHARLES JOSEPH ROWAN, M.D.; Assistant Professors of Surgery.

EDWIN WARNER RYERSON, M.D., Assistant Professor of Surgery (Orthopedic).
 EMANUEL FRIEND, M.D.; STEPHEN EDWARD DONLON, M.D.; GEORGE FARNS-
 WORTH THOMPSON, M.D.; CARL BRADEN DAVIS, M.D.; COLEMAN GRAVES
 BUFORD, M.D., Instructors in Surgery.

ROBERT HARRY HERBST, M.D., Instructor in Surgery (Genito-urinary).

FREDERICK BROWN MOREHEAD, D.D.S., M.D.; Instructor in Surgery (Oral and
 Dental).

OSCAR THEODORE ROBERG, M.D.; VICTOR LUPU SCHRAGER, M.D.; DALLAS
 BALDWIN PHEMISTER, M.D.; HERMAN LOUIS KRETSCHMER, M.D.; PAUL
 OLIVER, M.D.; GEORGE GILBERT DAVIS, M.D.; HERBERT ANTHONY POTTS,
 M.D.; ISABELLA HERB, M.D., Associates in Surgery.

JOHN PATRICK GRIMES, M.D.; ALEXANDER WERELIUS, M.D.; THOMAS IRA
 MOTTER, M.D.; EVARTS AMBROSE GRAHAM, M.D.; VERNON CYRENIUS
 DAVID, M.D.; EDWARD JAMES LEWIS, M.D., Assistants in Surgery.

HUGH JAMES POLKEY, M.D.; THEODORE DROSDOWITZ, M.D.; JOSEPH JOHN-
 STON SHERRILL, M.D.; EDWARD VON TOLL, M.D.; GEORGE LUDWIG ALT,
 M.D.; JOHN ALFRED GRAHAM, M.D., Assistants in Surgery (Genito-urinary).

WILLIAM TALMADGE HUGHES, M.D., *Nicholas Senn* Fellow in Surgery.

INTRODUCTORY

A total of 5½ majors in surgery is required. The following subjects are pre-
 requisite to other courses and to final examination: Surgical Anatomy, .8; Sur-
 gical Pathology and General Surgery, 1; Clinic and Conference Courses, includ-
 ing one course on each of the divisions of Regional Surgery: (a) Head, Neck, and
 Thorax; (b) Abdomen; (c) Extremities, 1.8; Genito-urinary, 4; Orthopedic,
 .2; Surgical Dispensary, .2; Operative Surgery on Cadaver and Animals, .3;
 Cook County Hospital Section Clinics, .2. In addition, one more major, elected
 as the student desires, and devoted either to laboratory or clinical work, is recom-
 mended.

COURSES OF INSTRUCTION

JUNIOR YEAR

1. **Principles of Surgery and Surgical Pathology.**—A recitation and labora-
 tory course. M., W., F., 4:00. 36 hours. .5Mj. Autumn Quarter, DRS. ROWAN,
 THOMPSON, DAVIS, SCHRAGER, GRAHAM, LEWIS, AND DAVID.

2. **Principles of Surgery and Surgical Pathology.**—A recitation and labora-
 tory course. M., W., F., 4:00. 36 hours. .5Mj. Winter Quarter, DRS. ROWAN,
 THOMPSON, DAVIS, SCHRAGER, GRAHAM, LEWIS, AND DAVID.

3. **Surgical Anatomy.**—A demonstration and conference course, with dis-
 sections of the abdomen and lower extremity. M., Th., 12:00-1:00. 24 hours. .4Mj.
 Autumn Quarter, ASSISTANT PROFESSORS PARKER AND LEWIS.

4. **Surgical Anatomy.**—A demonstration and conference course, with dis-
 sections of head, neck, thorax, and upper extremity. Tu., F., 12:00-1:00. 24 hours.
 .4Mj. Winter Quarter, ASSISTANT PROFESSORS PARKER AND LEWIS.

5. **Clinical Surgery (Central Free Dispensary).**—Including bandaging, sur-
 gical dressings, and surgical appliances. Daily, 11:00-1:00. 48 hours. .4Mj.
 Each quarter throughout the year; Sec. A.—M., Th.; Sec. B.—Tu., F.; Sec. C.—
 W., S. Each section limited to ten students. PROFESSOR BEVAN, ASSISTANT PRO-

PROFESSORS PARKER AND ROWAN, AND DRs. CARL DAVIS, OLIVER, GEORGE DAVIS, POTTS, GRIMES, WERELIUS, MOTTER, AND STRAUSS.

This course may be elected by Junior students after one quarter's residence in the clinical years during which other courses in surgery have been taken.

JUNIORS AND SENIORS

6. Clinical Surgery.—A clinical and conference course in general surgery, with special reference to and examination in the surgery of the head, neck, and thorax. This course includes instruction in the administration of anesthetics. M., and Th., Tu., and F., 48, 60, or 96 hours. .4, .6, or .8Mj. Autumn Quarter, PROFESSOR BEVAN, ASSISTANT PROFESSORS LEWIS, PARKER, ROWAN, AND RYAN.

8. Clinical Surgery.—A clinical and conference course in general surgery, with special reference to and examination in the surgery of the abdomen. This course includes instruction in the administration of anesthetics. M., and Th., Tu., and F., 11:00–1:00. 48, 60, or 96 hours. .4, .6, or .8Mj. Winter Quarter, PROFESSOR BEVAN, ASSISTANT PROFESSORS LEWIS, PARKER, ROWAN, AND RYAN.

10. Clinical Surgery.—A clinical and conference course in general surgery, with special reference to and examination in surgery of the extremities. This course includes instruction in the administration of anesthetics. M., Tu., Th., and F., 11:00–1:00. 48, 60, or 96 hours. .4, .6, or .8Mj. Spring Quarter, PROFESSOR BEVAN, ASSISTANT PROFESSORS LEWIS, PARKER, ROWAN, AND RYAN.

12. Clinical Surgery.—A clinical and conference course in general surgery. This course includes instruction in the administration of anesthetics. M., Tu., Th., and F., 11:00–1:00. 48, 60, or 96 hours. .4, .6, or .8Mj. Summer Quarter, PROFESSOR BEVAN, ASSISTANT PROFESSORS LEWIS, PARKER, ROWAN, AND RYAN.

Laboratory and research work in surgical pathology may be elected by a limited number of students in the laboratories of Professor Bevan, and credit in proportion to the character and length of course may be granted, but not to exceed in any one Quarter .4Mj.

12A. Clinical Course in the Presbyterian Hospital (Optional).—Two to six students will be assigned to one of the clinical services in the hospital to serve for short periods to give anesthetics and act as clinical assistants. Hours to be assigned.

13. Orthopedic Surgery.—A clinical and conference course in orthopedic surgery. Tu., 11:00–1:00, Autumn Quarter. 24 hours. .2Mj. PROFESSOR RIDLON AND ASSOCIATES.

14. Orthopedic Surgery.—A clinical course at the Home for Crippled Children. Hours to be announced. 24 hours. .2Mj. Winter, Spring, and Summer Quarters, PROFESSOR RIDLON, ASSISTANT PROFESSOR RYERSON, AND ASSOCIATES.

15. A Surgical Clinic.—S., 2:00–4:00. 24 hours. .2Mj. Summer, Autumn, Winter, and Spring Quarters, CLINICAL PROFESSOR GRAHAM.

16. A Practical Course in Operative Surgery on the Cadaver and on Animals.—Given to the class in sections. M., W., F., 4:00–6:00. 36 hours. .6Mj. Repeated each term of the Autumn and Winter Quarters and the first term of the Spring Quarter. Limited to twenty-four students. ASSISTANT PROFESSOR RYAN AND DR. GEORGE G. DAVIS.

17. Genito-urinary Diseases.—A clinical and conference course in diseases of the genito-urinary tract. Summer, Autumn, and Winter Quarters, Central Free Dispensary; Spring Quarter, College Amphitheater. M., F., 4:00–6:00. 48 hours. .4Mj. Each Quarter, PROFESSOR BELFIELD, DR. HERBST, AND ASSISTANTS.

18. Clinical Course at the Cook County Hospital.—Class limited to eight students. Th., 11:00–1:00. 24 hours. .2Mj. Each quarter, ASSISTANT PROFESSOR ROWAN.

19. Clinical Course at the Cook County Hospital.—Class limited to eight students. F., 11:00–1:00. 24 hours. .2Mj. CLINICAL ASSISTANT PROFESSOR WEBER.

20. Clinical Course at the Cook County Hospital.—Class limited to eight students. Hours to be announced. 24 hours. .2Mj. ASSISTANT PROFESSOR KEYES.

21. Clinical Course at the Cook County Hospital.—Class limited to eight students. Tu., 11:00-1:00. 24 hours. .2Mj. ASSISTANT PROFESSOR RYAN.

22. Clinical Course at the Cook County Hospital.—Class limited to eight students. Autumn, Winter, and Spring Quarters, Tu., 7:00-9:00. 24 hours. .2Mj. ASSISTANT PROFESSOR ROWAN.

23. Clinical Course at the Cook County Hospital.—Class limited to eight students. Th., 7:00-9:00. 24 hours. .2Mj. ASSISTANT PROFESSOR RYAN AND DR. THOMPSON.

24. Orthopedic Surgery.—A clinical and conference course at the Cook County Hospital. M., 3:00. 12 hours. .1Mj. Autumn and Spring Quarters, ASSISTANT PROFESSOR RYERSON.

27. Orthopedic Clinic.—A clinic at the Children's Memorial Hospital. Limited to eight students. .2Mj. Autumn, Winter, and Spring Quarters, Wed., 4:00-6:00. 24 hours. ASSISTANT PROFESSOR RYERSON.

28. Surgical Clinic.—A clinic at the Children's Memorial Hospital. Limited to eight students. .2Mj. Autumn, Winter, and Spring Quarters, Tu., 4:00-6:00, 24 hours. DR. BUFORD.

POSTGRADUATE

29. Operative Surgery for Postgraduates.—On dogs, surgery of gastrointestinal tract taking up gastrotomy, gastro-enterostomy, end to end intestinal anastomosis, lateral anastomosis, colostomy, Murphy button anastomosis, gall-bladder drainage, etc. On the cadaver, amputations, ligations, drainage of joints, emergency and cranial operations. Four weeks, beginning July 1 and August 1. M., W., F., 4:30-6:00. Other days or months by special arrangement. Four or eight men. Fee, \$25.00. ASSISTANT PROFESSOR LAWRENCE RYAN AND DR. GEORGE G. DAVIS.

IX. DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

OFFICERS OF INSTRUCTION

JOHN CLARENCE WEBSTER, M.D., F.R.C.P. (Edin.), Professor and Head of the Department of Obstetrics and Gynecology.

RUDOLPH WIESER HOLMES, M.D., Associate Professor of Obstetrics and Gynecology.

ALBERT BELCHAM KEYES, M.D.; FRANK WORTHINGTON LYNCH, M.D., Assistant Professors of Obstetrics and Gynecology.

CHARLES EVART PADDOCK, M.D., Assistant Clinical Professor of Obstetrics and Gynecology.

CAREY CULBERTSON, M.D.; WILLIAM BERNHARDT FEHRING, M.D.; W. GEORGE LEE, M.D., Instructors in Obstetrics and Gynecology.

WALLACE FAHNSTOCK GROSVENOR, M.D.; NOBLE SPROAT HEANEY, M.D., Associates in Obstetrics and Gynecology.

HARRY EDGAR MOCK, M.D., Clinical Associate in Obstetrics and Gynecology.

INTRODUCTORY

The subjects of Obstetrics and Gynecology are taught in the Junior and Senior years in laboratory, recitation, and conference courses, in Dispensary and Hospital clinics, and in the conduct of labor in the homes of patients. Students are obliged to commence their studies by taking the laboratory and recitation courses. Final examinations in both courses are compulsory.

OBSTETRICS

1. Conference Course.—Anatomy and physiology of pregnancy, bacteriology of genital tract, diagnosis of uterine pregnancy, multiple gestation, hygiene and management of pregnancy, clinical phenomena of normal labor. Each section limited to forty students. .4Mj. Autumn Quarter: Sec. A.—Tu., Th., 3:00-4:00, DR. HEANEY. Sec. B.—Tu., Th., 4:00-5:00, DR. CULBERTSON.

2. Conference Course.—Anatomy and physiology of normal labor, conduct and management of labor, sepsis in obstetrics, anatomy and physiology of puerperium, management of puerperal state, ectopic gestation, toxemia of pregnancy, eclampsia, premature expulsion of ovum, diseases of ovum. Prerequisite: course 1. Limited to 40 students. .6Mj. Winter Quarter: Sec. A.—M., W., F., 3:00-4:00, ASSISTANT PROFESSOR PADDOCK. Sec. B.—Tu., Th., S., 4:00-5:00, DR. FEHRING.

3. Conference Course.—Pathology of pregnancy (continued), pathology of labor, anomalies of expellant powers and soft passages, placenta praevia, ablatio placentae, hemorrhage during third stage, postpartum hemorrhage, retained placenta, adherent placenta, rupture of uterus, inversion of uterus, pathology of the puerperium. Prerequisite: courses 1 and 2. Limited to twenty students. .6Mj. Spring Quarter: Sec. A.—M., W., F., 4:00-5:00, ASSOCIATE PROFESSOR HOLMES. Sec. B.—M., W., F., 3:00-4:00, ASSISTANT PROFESSOR LYNCH. Sec. C.—M., W., F., 4:00-5:00, ASSISTANT PROFESSOR PADDOCK. Sec. D.—Tu., Th., S., 3:00-4:00, DR. LEE. Autumn Quarter: M., W., F., 4:00-5:00, ASSOCIATE PROFESSOR HOLMES.

4. Practical Obstetrics.—Occipito-posterior, face, brow, pelvic, transverse presentations, prolapse of cord, arms, legs, anomalies of the bony pelvis, artificial interruption of pregnancy, version, forceps, symphysiotomy, pubiotomy, embryotomy, Caesarian section. Prerequisite: courses 1, 2, and 3. Limited to twelve students. .4Mj. Summer Quarter: M., Th., 2:00-4:00, DR. LEE. Autumn Quarter: Sec. A.—W., S., 4:00-6:00, ASSISTANT PROFESSOR PADDOCK. Sec. B.—M., Th., 2:00-4:00, DR. LEE. Winter Quarter: Sec. A.—W., S., 4:00-6:00, DR. FEHRING. Sec. B.—M., Th., 2:00-4:00, DR. GROSVENOR. Spring Quarter: M., Th., 4:00-6:00, DR. CULBERTSON.

SENIOR YEAR

Clinical Obstetrics.—In the maternity department of the Presbyterian Hospital, Charity Hospital, Chicago Lying-in Dispensary, and Central Free Dispensary. Prerequisite: Courses 1 and 2. .2Mj. Throughout the year. PROFESSOR WEBSTER, ASSISTANT PROFESSORS LYNCH AND PADDOCK. DRS. FEHRING, CULBERTSON, AND OTHERS. Attendance upon cases of confinement in various hospitals, and at the homes of patients is required of each student before graduation. Each student will be summoned to cases at the time of delivery, and will attend the patients during and after delivery, under supervision. Clinical records must be kept by students and certificates obtained.

GYNECOLOGY

JUNIOR YEAR

6. Laboratory and Recitation Course.—Limited to twenty students. .4Mj. Autumn Quarter: W., S., 11:00-1:00, DR. FEHRING. Winter Quarter: W., S., 11:00-1:00, DR. CULBERTSON. Spring Quarter: W., S., 4:00-6:00, DR. FEHRING. Summer Quarter: W., S., 4:00-6:00, DR. HEANEY.

JUNIOR AND SENIOR YEARS

7. Clinical Conference.—Prerequisite: course 6. Limited to forty students. .6Mj. Winter Quarter: M., W., F., 4:00-5:00, ASSISTANT PROFESSOR LYNCH. Spring Quarter: Tu., Th., S., 4:00-5:00, ASSISTANT PROFESSOR KEYES.

8. Dispensary Clinics.—Conferences in practical Gynecology, limited to four in each section. Prerequisite: course 6. 24 hours. .4M. Each term throughout the year. M., Th., 11:00-1:00, DR. FEHRING. Tu., F., 11:00-1:00, DR. CULBERTSON. W., S., 11:00-1:00, DR. HEANEY.

SENIOR YEAR

9. College Clinics.—In Gynecology and Obstetrics. Prerequisite: course 6. 48 hours. 4Mj. Each quarter throughout the year: W., S., 11:00-1:00, PROFESSOR WEBSTER AND ASSISTANT PROFESSORS KEYES AND LYNCH.

10. Special Laboratory Work.—For a limited number of students selected by the department staff.

Operative Obstetrics for Postgraduates.—Diagnosis; indications for operation; choice of procedure. Technique of all obstetrical operations. Prognosis, the technique of Forceps, Version, Craniotomy, Decapitation, will be practiced upon the manikin. Obstetrical injuries to the fetus and treatment. Course limited to 5 to 10 students. Duration, time, and price to be arranged. DR. HEANEY.

X. DEPARTMENT OF LARYNGOLOGY AND OTOTOLOGY

OFFICERS OF INSTRUCTION

EPHRAIM FLETCHER INGALS, A.M., M.D., Professor of Diseases of the Chest, and of Laryngology and Otology, and Head of the Department of Laryngology and Otology.

JOHN EDWIN RHODES, A.M., M.D., Associate Professor of Diseases of the Chest, and of Laryngology and Otology.

OTTO TIGER FREER, M.D.; GEORGE ABRAHAM TORRISON, M.D.; GEORGE ELMER SHAMBAUGH, M.D.; ELMER LAWTON KENYON, M.D.; Assistant Professors of Laryngology and Otology.

F. GURNEY STUBBS, M.D.; DAVID FISKE, M.D.; THOMAS WILLIAMS LEWIS, M.D.; FREDERICK IRVING BROWN, M.D.; GEORGE WILLIAM BOOT, M.D., Instructors in Laryngology and Otology.

STANTON ABELES FRIEDBERG, M.D.; ROBERT SONNENSCHN, M.D.; Associates in Laryngology and Otology.

GEORGE WARNER MOSHER, M.D.; HENRY PATTERSON BAGLEY, M.D.; ALBERT NELSON OYEN, M.D.; WILLIAM ANDREW PLICE, M.D., Assistants in Laryngology and Otology.

DANIEL BERNARD HAYDEN, M.D.; GUSTAVE H. MUNDT, M.D.; WILLIAM GEORGE ALEXANDER, M.D.; WILLIAM THOMAS WINTERS, M.D.; ALFRED NICHOLAS MURRAY, M.D.; JAMES WILLIAM WILSON, M.D., Clinical Assistants in Laryngology and Otology.

AT THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY

NORVAL HARVEY PIERCE, M.D., Assistant Clinical Professor (Extra-mural) of Laryngology and Otology.

INTRODUCTORY

COURSES

Every physician before beginning the practice of medicine should have a working knowledge of the whole field, and should be equipped to diagnose the more common diseases generally included in the specialties, and to apply judicious early treatment. These courses are, therefore, designed, not for specialists, but to furnish students a knowledge of those special diseases with which they must have to do in general practice.

A total of 1.2 Mj is required in this department, but it is recommended

that more be taken if time permits. Credit will not be allowed for a course repeated until all of the required work in the department has been completed. Courses 1 and 2 are prerequisite for the clinical courses. Students will be allowed to register for courses 1 and 2 in the Autumn Quarter. Students who have taken course 1 in the Spring Quarter will be allowed to register for courses 2 and 3 in the Summer Quarter.

COURSES FOR PRACTITIONERS

Physicians desirous of gaining a better knowledge of the work in the special fields of Laryngology and Otolaryngology may register for any of the courses in the department. Opportunity is offered for the study of the special anatomy and physiology of these subjects as well as for clinical study. Courses 6, 7, 8, and 9 are suited for this purpose; also course 20 on the Anatomy of the Ear (see p. 42).

COURSES OF INSTRUCTION¹

1. Rhinology, Laryngology, and Otolaryngology.—Introductory lecture course. Prerequisite for the clinical courses. .4Mj. Lectures: Tu., Th., 8:00. Spring Quarter (for Juniors), ASSISTANT PROFESSORS SHAMBAUGH AND FREER. Autumn Quarter (for Seniors), ASSISTANT PROFESSOR TORRISON AND DR. FISKE.

2. Nose, Throat, and Ear.—Practical courses in the technique of examination in the objective study of the normal and the commoner pathological conditions of the nose, throat, and ear, and intubation of the larynx. Sections limited to six students. Prerequisite for the succeeding clinical courses. Each quarter throughout the year. 36 hours. .3Mj.

Summer Quarter.—Sec. A.—Ear: Th., 2:00–3:00, DR. BROWN. Nose and Throat: M., Th., 3:00–4:00, DR. OYEN. Sec. B.—Ear: Tu., 2:00–3:00, DR. BOOT. Nose and Throat: Tu., 3:00–4:00, F., 2:00–3:00, DR. LEWIS.

Autumn, Winter, and Spring Quarters.—Sec. A.—Ear: Th., 2:00–3:00, DR. BROWN. Nose and Throat: M., Th., 3:00–4:00, ASSISTANT PROFESSOR KENYON OR DR. SONNENSCHNEIN. Sec. B.—Ear: Tu., 2:00–3:00, DR. BOOT. Nose and Throat: Tu., 3:00–4:00, F., 2:00–3:00, DR. TORRISON. Sec. C.—Ear: W., 2:00–3:00, DR. FISKE. Nose and Throat: W., S., 3:00–4:00, DR. STUBBS.

2F. Nose, Throat, and Ear.—Clinical and practical course at the Cook County Hospital. Similar to course 2. Prerequisite: course 1. Limited to ten students. M., F., 2:00–4:00. 36 hours. .3Mj. Autumn, Winter, and Spring Quarters, DR. FRIEDBURG.

3. Clinical Courses.—Prerequisite: courses 1 and 2. Students who have taken course 1 in the Spring Quarter will be allowed to register for courses 2 and 3 in the Summer Quarter. Each quarter throughout the year. Students may register for both sections A and B in the same quarter; or may take the sections in different quarters.

Sec. A.—Diseases of the Nose and Throat. 24 hours. .2Mj. W., 2:00–4:00. Summer Quarter, DRS. STUBBS AND OYEN. Autumn Quarter, ASSOCIATE PROFESSOR RHODES AND DR. BAGLEY. Winter Quarter, ASSISTANT PROFESSOR FREER AND DR. MOSHER. Spring Quarter, ASSISTANT PROFESSOR TORRISON AND DR. LEWIS.

Sec. B.—Diseases of the Ear. 24 hours. .2Mj. F., 2:00–4:00, Autumn, Winter, and Spring Quarters, ASSISTANT PROFESSOR SHAMBAUGH. Summer Quarter: M., 2:00–4:00, DR. BROWN.

4. Diseases of the Nose, Throat, and Ear, at the Illinois Charitable Eye and Ear Infirmary.—Clinical course (Extra-mural). Prerequisite: courses 1 and 2. Class limited to ten students. .2Mj. Each quarter excepting the Summer: W., 2:00–4:00, or S., 2:00–4:00, ASSISTANT CLINICAL PROFESSOR PIERCE.

¹ Attention is also called to course Anatomy 20, the Anatomy of the Ear (see page 42 of this Announcement)

6. **Special Work for Student Assistants in the Dispensary.**—Junior or Senior students may register as follows: M. and Th., one student in Nose and Throat and one in Ear; Tu. and F., one student in Nose and Throat and one in Ear; W. and S., one student in Nose and Throat and one in Ear. Hours in Nose and Throat: 1:45-4:00; Ear: 1:30-3:00. .2Mj.

7. **Surgical Anatomy of the Ear.**—A course for advanced students and practitioners. Class limited to six students. 12 hours. .2Mj. Winter Quarter, Tu., 3:00-4:00, DR. BOOT.

8. **Surgical Anatomy, Physiology, and Pathology of the Nose and Throat.**—A course for advanced students and practitioners. Class limited to six students. 12 hours. .2Mj. Summer and Winter Quarters, W., 3:00-4:00, DR. SONNENSCHN.

9. **Operative Course on the Cadaver,** demonstrating the usual operations on the nose, throat, and ear for advanced students and practitioners. 12 hours. .2Mj. Class limited to six students. Days to be announced. 4:00-6:00. Second Term, Spring Quarter, DRs. STUBBS AND FRIEDBERG.

10. **Defects of Speech.**—A lecture and clinical course offered to graduate students and to seniors who have completed 1.2Mj. of work in the department. From the standpoint of the anatomy and physiology of speech-production the important disorders of speech are considered, including defects of articulation, stammering, the aphonias organic and functional, the difficulties of public speakers and singers, etc. 8 to 12 hours. .1Mj. Summer Quarter, ASSISTANT PROFESSOR KENYON.

XI. DEPARTMENT OF OPHTHALMOLOGY

OFFICERS OF INSTRUCTION

WILLIAM HAMLIN WILDER, M.D., Professor and Head of the Department of Ophthalmology.

EDWARD VAIL LAPHAM BROWN, M.D., Assistant Professor of Ophthalmology.

JOHN BERNARD ELLIS, M.D.; LORENZO NELSON GROSVENOR, M.D.; FRANCIS ALBERT LANE, M.D., Instructors in Ophthalmology.

ALBERT MARVIN HALL, M.D.; AUSTIN ALBERT HAYDEN, M.D., Associates in Ophthalmology.

CHARLES GILCHRIST DARLING, M.D.; CHARLES PORTER SMALL, M.D.; FRED WILLIS KETTLESTRINGS, M.D., Assistants in Ophthalmology.

WILLIAM GEORGE REEDER, M.D.; JULIUS C. OSHER, M.D.; WILLIAM HAMILTON LAMBERT, M.D., Clinical Assistants in Ophthalmology.

INTRODUCTORY

UNDERGRADUATE COURSES

A total of .8 majors in Ophthalmology is required for graduation.

The courses are designed to give the student that general knowledge of the diseases of the eye which every well-educated physician ought to possess. It is, therefore, the aim to select for the clinical demonstrations chiefly those diseases which are of the greatest interest to the general practitioner. The students are given the privilege of examining the cases, of studying the progress of the diseases and the effect of the treatment from day to day; and also of witnessing the delicate technique of the operations on the eye. Each exhibition of cases is followed by a brief discourse on the etiology, pathology, symptomatology, and treatment of the diseases under observation.

The courses in practical ophthalmology are designed to teach the student the

methods of examination of the eye by various tests, the necessary manipulations for treatment, and the use of the ophthalmoscope, which will be done by practical exercises on schematic and living eyes. For this work each student must provide himself with an ophthalmoscope.

Practical courses in refraction are offered for undergraduates and also for practitioners of medicine, in which the methods of fitting glasses are taught.

Special courses for small classes on the normal and morbid anatomy and histology of the eye are made particularly instructive by the exhibition of anatomical preparations and microscopic slides.

GRADUATE COURSES

Courses will be arranged for physicians who desire to prepare themselves for the practice of ophthalmology, comprising instruction in the anatomy, physiology, bacteriology, and pathology of the eye, in ophthalmoscopy and refraction, and opportunities for clinical work as assistants in the Central Free Dispensary and elsewhere. Preparation for such special practice should be undertaken only by physicians who have had considerable experience in general practice, and should extend over at least six quarters. These need not, however, be taken consecutively but may be attended one, two, or more quarters at a time, at the convenience of the practitioner.

COURSES OF INSTRUCTION

1. **Diseases of the Eye.**—A lecture and recitation course. 24 hours. .4Mj. W., F., 4:00-5:00, Summer Quarter (for Seniors), DR. GROSVENOR. W., F., 5:00-6:00, Autumn Quarter (for Seniors), DR. ELLIS. W., F., 5:00-6:00, Spring Quarter (for Juniors), ASSISTANT PROFESSOR BROWN.

2. **Practical Ophthalmology in the Central Free Dispensary.**—Limited to ten students in each section. Each section one term. 12 hours. .2Mj. Summer Quarter: M., Th., 3:00-4:00, DR. HAYDEN. Autumn Quarter: M., Th., 3:00-4:00, DR. ELLIS. Winter Quarter: Tu., F., 3:00-4:00, DR. GROSVENOR. Spring Quarter: W., S., 3:00-4:00, DR. DARLING.

Courses 1 and 2 may be taken in the same quarter, but both are prerequisite to all clinical courses.

3. **Clinical Lecture Course.**—Prerequisite: courses 1 and 2. Each quarter: M., F., 3:00-4:00. 24 hours. .2Mj. Summer Quarter, DR. ELLIS AND DR. HAYDEN. Autumn, Winter, and Spring Quarters, PROFESSOR WILDER.

4. **Clinical Course on the Eye at the Illinois Charitable Eye and Ear Infirmary.**—Prerequisite: courses 1 and 2. Two sections each quarter, except summer. Limited to ten students each. 24 hours. .2Mj. Sec. A.—Th., 2:00-4:00, PROFESSOR WILDER. Sec. B.—S., 4:00-6:00, ASSISTANT PROFESSOR BROWN AND DR. LANE.

5. **Clinical Course at the Cook County Hospital.**—In this course special attention will be given to the relation of the eye to general disease. Prerequisite: courses 1 and 2. 12 hours. .1Mj. Autumn, Winter, and Spring Quarters, Th., 2:00-3:00. DR. KETTLESTRINGS.

6. **Normal and Pathological Anatomy of the Eye.**—A course for advanced students and practitioners. Limited to five students. One term. 24 hours. S., 3:00-5:00. .2Mj. Summer Quarter, at the University of Chicago, ASSISTANT PROFESSOR BROWN (see course Pathology 6, p. 58); Autumn Quarter, DR. GROSVENOR; Spring Quarter, at the Eye and Ear Infirmary, DR. LANE.

7. **Refraction.**—A practical course (optional) for undergraduates. Limited

to six students. Each term of every quarter, 2:00-3:00, two days a week. 12 hours. .1Mj. Hours to be arranged.

8. Refraction.—A special course for practitioners. Each quarter. Hours to be arranged. Limited to six students. Tuition, \$25.00.

XII. DEPARTMENT OF SKIN AND VENEREAL DISEASES

OFFICERS OF INSTRUCTION

JAMES NEVINS HYDE, A.M., M.D., Professor and Head of the Department of Skin and Venereal Diseases.

OLIVER SAMUEL ORMSBY, M.D., Associate Professor of Skin and Venereal Diseases.

HENRY GILES ANTHONY, M.D., Assistant Professor of Skin and Venereal Diseases.

ERNEST LEWIS McEWEN, S.M., M.D.; WILLIAM AUGUSTUS QUINN, M.D., Instructors in Skin and Venereal Diseases.

WILLIAM J. M. CUNNINGHAM, M.D., Clinical Associate in Skin and Venereal Diseases.

ERNEST WILLIAM POTTHOFF, M.D.; ARTHUR NORTON MACKEY, M.D.; GUY CARSON KINNAMAN, M.D., Clinical Assistants in Skin and Venereal Diseases.

INTRODUCTORY

The work of this Department is elective and offered to members of the Senior class. Instruction is given by clinical teaching in the College amphitheater, the Dispensary, and the Cook County Hospital, by recitations and by demonstrations to small classes of clinical, bacteriologic, and pathologic phenomena.

Instruction in this Department is supplemented by ample use of the large collection of dermatological plates, atlases, and photographs arranged in cases in proximity to the upper amphitheater; also by use of the Baretta Models procured in Paris for use of this Department.

It is suggested that students begin work in this Department by taking course 1 (open to Juniors in the Spring Quarter), and every student is expected to follow this with course 2. The textbooks used are Hyde *On the Skin*, and Hyde and Montgomery's *Manual of Syphilis and the Venereal Diseases*.

COURSES OF INSTRUCTION

1. Skin, Genito-urinary, and Venereal Diseases.—A recitation and conference course given to the class in sections not exceeding twenty-five. 8:00-9:00. 24 hours. .4Mj. Summer Quarter, DR. CUNNINGHAM. Autumn Quarter, DR. QUINN. Winter Quarter, DR. KINNAMAN. Spring Quarter, DR. McEWEN.

2. Clinical Course.—A clinical course on the subject of Skin, Genito-urinary, and Venereal Diseases. The clinic has been conducted in the College for many years and is attended by a large number of out-patients of both sexes and all ages. Each quarter throughout the year. M., Th., 2:00-4:00. 48 hours. .4Mj. Summer Quarter, ASSISTANT PROFESSOR ANTHONY. Autumn and Spring Quarters, PROFESSOR HYDE. Winter Quarter, ASSOCIATE PROFESSOR ORMSBY.

3. Clinical Course in the Central Free Dispensary.—A clinical course given to the class in small sections in the dermatological and genito-urinary departments of the Central Free Dispensary. The student is here brought in personal contact with patients and required to examine and prescribe for them as in private practice. 24

hours. .4M. Each term throughout the year, daily 2:00-4:00, ASSISTANT PROFESSOR ANTHONY, DRs. McEWEN, QUINN, AND CUNNINGHAM.

4. **Clinical Course in Dermatology at the Cook County Hospital.**—A clinical demonstration course given to the class in small sections. Autumn, Winter, and Spring Quarters. 24 hours. .2Mj. Tu., 2:00-4:00, ASSOCIATE PROFESSOR ORMSBY.

5. **Syphilis**, with reference to involvement of the viscera, and of the nervous, osseous, and muscular systems.—A lecture course given to the class in small sections. M., F., 8:00-9:00. 12 hours. .4M. Each term of the Autumn Quarter, DR. McEWEN.

6. **Histopathology and Bacteriology of the Skin.**—A demonstration course, including instructions and practical work in methods peculiar to the study of cutaneous pathology and bacteriology. Tu., F., 4:00-6:00. Open to practitioners and limited to eight students. 24 hours. .4M. Each term of the Spring Quarter, ASSOCIATE PROFESSOR ORMSBY.

7. **Radiotherapy and Phototherapy** (Optional).—A practical course, with demonstration of the technique of the employment of X rays and the Finsen light in diseases of the skin. Several lectures of this course will be given each quarter at hours arranged. The course is open also to practitioners. ASSOCIATE PROFESSOR ORMSBY.

XIII. GENERAL LECTURES AND OPTIONAL COURSES

1. **Medical Jurisprudence.**—A lecture course supplemented by recitations and conferences. .6M. Winter Quarter. Hours to be announced.

2. **The History of Medicine** (Optional).—A lecture course by PROFESSOR DODSON. Winter Quarter. Hours to be announced.

3. **Examinations for Life Insurance** (Optional).—A lecture and conference course on the nature and purpose of life insurance; the duties and essential qualifications of the examiner for life insurance, etc. Winter Quarter. Hours to be announced.

4. **Medical Economics** (Optional).—A lecture course in medical economics and ethics. .1Mj. 6 hours. Winter Quarter. Hours to be announced.

LABORATORIES, EQUIPMENT, AND LIBRARIES

THE HULL BIOLOGICAL LABORATORIES

On December 14, 1895, Miss Helen Culver, of the city of Chicago, presented to the University of Chicago property valued at \$1,000,000—the whole gift, according to the terms of the letter of endowment, to be devoted to the increase and spread of knowledge within the field of the biological sciences. From this fund there have been erected, at the north end of the University grounds, four buildings to serve as laboratories for the Anatomical, Botanical, Physiological, and Zoölogical Sciences. Medical instruction is given in the Anatomical, Physiological, and Zoölogical Laboratories.

THE ANATOMICAL LABORATORY

The Anatomical Laboratory is 120 by 50 feet, and four stories high, exclusive of the basement and attic, and was constructed to provide for Anatomy, both gross and microscopic, including Neurology. In the basement are special rooms for keeping frogs and similar animals at low temperatures, a bone-room, a storage room for anatomical material, and a crematory. The first floor is occupied by three large laboratories for microscopic work (Histology, Microscopic Anatomy,

Neurology, and Pathology), and a large photographic room containing a stone pier and connected with a dark-room. On the second floor there is an additional room for general class work in microscopic branches, a lecture-room, and an osteological laboratory. Here, too, are located the laboratories of the staff in Neurology and a laboratory for advanced work and original research in Neurology. On the third and fourth floors are situated the dissecting-rooms for Human Anatomy, the private laboratories for instructors and research workers, and two laboratories for the making of special preparations. In the attic there is a well-lighted operating room adjoining a large animal room; in addition, several storerooms are situated here. The laboratories are well equipped for work in gross and microscopic Anatomy and in Pathology, and especial facilities are afforded for advanced work and original research.

THE PHYSICAL LABORATORY

The Physiological Laboratory is 102 by 52 feet and four stories high, exclusive of the basement and attic. The basement contains a cold-storage room, aquarium room, an animal room, dark-room, and storerooms. It is connected with the greenhouse of the laboratory. The first floor contains general laboratories for beginners, a shop, a storeroom, a lecture-room, and a photographic room. The second floor contains a large lecture-room with preparation room and storeroom, the departmental library, an optical room, two dark-rooms, and private laboratories. The third floor contains two laboratories for advanced workers in Physiology, a laboratory for beginners in Physiological Chemistry and Pharmacology, a balance-room, and several smaller rooms for work in Physiological Chemistry and Pharmacology. The fourth floor contains two rooms with cages for animals and two operating rooms. In addition, two laboratories for work in Physiological Chemistry and Pharmacology, a combustion room, and a room for work in gas-analysis. The laboratories are well equipped both for general instruction in Physiology, Physiological Chemistry, and Pharmacology, and for advanced and research work in these sciences.

THE ZOÖLOGICAL LABORATORY

The Zoölogical Laboratory is 120 by 50 feet, and four stories high, exclusive of the basement. On the first floor are located the library of the biological departments, a synoptical museum, a large laboratory for elementary Zoölogy, and a laboratory for research work in Pathology. The second floor contains one large laboratory for beginners in research, and a number of smaller laboratories for more advanced work. The third floor contains three large laboratories for comparative Anatomy and Embryology, and a number of rooms for research. The fourth floor is devoted to the laboratories of Bacteriology, which are supplied with sterilizers, incubators, special microscopes, and other bacteriological apparatus, and are furnished with tables for microscopical work and for the usual laboratory manipulations. The basement contains one large room with glass-covered extension on the south side, designed for an aquarium; two rooms for use as aviaries, vivaria, etc.; one room for paleontological material; and one for taxidermy and

museum purposes. The best optical and other apparatus demanded by zoölogical work are provided. There are series of models and charts illustrating embryological and morphological subjects, and ample facilities for keeping land and aquatic animals under favorable conditions for study.

THE KENT CHEMICAL LABORATORY

The Chemical Laboratory was provided by the generosity of Mr. Sidney A. Kent, is 176 by 64 feet, and is three stories high exclusive of the basement. An amphitheater seating 750 people forms an annex to the building. Lectures are given in rooms on the first floor. The laboratory instruction in General Inorganic and Elementary Organic Chemistry is given on the third floor in three large laboratories accommodating 300 students. Each student is given a separate desk supplied with gas and water, and is furnished with all the necessary chemicals and apparatus. The laboratories for analytical chemistry are on the second and third floors. The advanced work in Chemistry is done in general and private laboratories on the first and second floors. There are a number of small rooms used as balance, combustion, gas-analysis, photographic rooms, etc. The Chemical Library contains full sets of the most important journals, books of reference, and other works relating to Chemistry.

THE LIBRARIES

The General Library, located at Fifty-eighth Street and Ellis Avenue, is for the use of students in all departments of the University. Students who have matriculated and paid their library fee may take at one time three volumes from the General Library. These may be kept two weeks, and at the end of that time, if desired, may be renewed for two weeks. Former students may continue the use of the Library by the payment of the library fee of \$2.50 per quarter.

The total number of books at present in the Library is approximately 491,481. Number of volumes in Departmental Libraries of departments concerned in medical instruction, May 1, 1907: Biology, including Anatomy, Neurology, Physiology, Bacteriology, Pathology, Zoölogy, Physiological Chemistry, and Pharmacology, 16,410; Chemistry, 2,439; Physics, 2,333.

All the branch and departmental libraries are catalogued and classified.

The General Library is open on every week-day from 8:30 A.M. to 5:30 P.M. The Library receives 1,500 current periodical publications, including the transactions and proceedings of learned societies: the foreign serials number about 675. The Departmental Libraries are closed at 6:00 P.M., and are not open during the evening except to those to whom special permission has been granted by the departmental adviser.

The students of the University are permitted to use the books and periodicals in the Newberry Library and in the Crerar Library, both of which contain a large number of medical and general scientific works.

The Public Library of Chicago is also available to medical students for general reading.

BUILDINGS, EQUIPMENT, AND HOSPITAL FACILITIES AT RUSH MEDICAL COLLEGE

The Clinical Building, located at West Harrison and Wood Streets, is 60 by 80 feet, and four stories in height. The first floor is occupied by the college library and reading-room. On the second floor are situated the offices of the College, the lower amphitheater, seating 400, and clinical waiting-rooms. The third floor contains the upper amphitheater, seating 530 persons, a large surgical examining- and dressing-room, five clinical examining-rooms, and a waiting-room for patients. The fourth floor is occupied in part by the upper amphitheater, and in part by the laboratory for surgical and orthopedic appliances and bandaging.

Senn Hall, erected through the munificence of the late Professor Senn and other members of the Faculty, adjoins the Clinical Building on the east. It covers a ground space of 40 by 90 feet, is seven stories in height (including the basement), and of absolutely fireproof construction. The basement and first three floors, affording over 10,000 square feet of floor space, are devoted to the dispensary and the clinical teaching connected therewith. The fourth and fifth floors are occupied by clinical laboratories and recitation rooms. The remaining two stories contain two surgical and medical amphitheaters, seating about 150 each, with necessary waiting and preparation rooms.

The Laboratory Building, on the south side of Harrison Street, is 100 by 45 feet in area, and six stories in height (including the basement). The basement is occupied by storage-rooms for apparatus, an animal room for the laboratory of Pathology and Bacteriology, and a cloak-room for students. Adjoining the basements is a separate building for the preparation and storage of cadavers by the cold-storage process, with a capacity for about two hundred bodies. The first and second stories are devoted to the Department of Pathology and Bacteriology, which is fully equipped with the necessary microscopes and other apparatus for advanced work in these branches. The third floor is occupied by the Department of Chemistry and Toxicology, and is supplied with all the necessary apparatus and materials for advanced work in these branches in their relation to practical medicine. The fourth floor contains four recitation rooms and a laboratory for Pharmacy and Therapeutics. The fifth floor is devoted to advanced work in practical gross Anatomy, and to Operative Surgery.

The Presbyterian Hospital, with accommodations for about 300 patients, adjoins the College, and is connected with it, so that patients may be transferred directly from the wards to the clinical amphitheaters. In this hospital over 2,000 patients are treated annually, and it thus affords a large amount of valuable material for the clinics.

The Children's Memorial Hospital, with six buildings and about 120 exclusively free beds, provides an exceptionally valuable clinical material for the study of the medical and surgical affections of infancy and childhood. Under the contract recently entered into between the trustees of this hospital and Rush

Medical College, this material is made available to the faculty and students of Rush Medical College for instruction and research.

In the Cook County Hospital, which is situated opposite the College, are treated about 20,000 patients annually. In this institution are given about forty clinics a week, including all varieties of medical and surgical cases. The facilities for the study of Pathology which are offered at the Cook County Hospital are unexcelled in this country. Between 300 and 400 post-mortems are made annually in the necropsy theater by Associate Professor LeCount, Assistant Professor Hunter, and the other pathologists of the hospital.

The Library and Reading-Room occupies the first floor of the Clinical Building, a most convenient location for students. The library contains about 16,000 volumes, and files of all the leading medical journals in English, German, and French.

Extra-mural Courses.—Through the courtesy of the medical attendants and managing officers of several hospitals and dispensaries within convenient distance of the College, *extra-mural* clinical courses are offered to the students of Rush, in small groups, and the clinical material available for teaching has thus been greatly augmented. Such courses are offered at the West Side Hebrew Dispensary, treating over 30,000 cases annually; at the St. Luke's Hospital, with about 2,000 cases annually; at the Illinois Charitable Eye and Ear Infirmary, treating about 1,000 cases; at the Chicago Isolation Hospital; and at St. Anthony's Hospital, with about 100 beds.

FELLOWSHIPS, HOSPITAL INTERNES, AND PRIZES

(RUSH MEDICAL COLLEGE)

FELLOWSHIPS

The following fellowships have been provided in the several departments:

1. The Fellowship in Chemistry. Not to be awarded in 1910-11.
2. The Fellowship in Pathology. Awarded to Dr. Floyd Burke Riley.
3. The DANE BILLINGS Fellowship in Medicine. Awarded to Dr. Homer K. Nicoll.
4. The DANIEL R. BROWER Fellowship, founded by the late Professor Daniel Roberts Brower, in the Department of Medicine. Not awarded in 1910-11.
5. The NICHOLAS SENN Fellowship in Surgery, founded by the late Professor Nicholas Senn. Awarded to Dr. William Talmadge Hughes.

HOSPITAL INTERNES

Positions as internes, through a competitive examination held by the respective hospital staffs, are open each spring to graduates of Rush Medical College in the following Chicago hospitals: the Presbyterian, the Children's Memorial, the Cook County, the Michael Reese, the St. Joseph's, the St. Elizabeth's, the St. Luke's, the Augustana, the Chicago, the Alexian Brothers', the Passavant, the Chicago Polyclinic, the German, the Norwegian, the Illinois Charitable Eye and Ear Infirmary, the Baptist, St. Anthony's, the Swedish, the Chicago Maternity,

the Bridewell, the Columbus, the United States Marine, the Washington Park, and others, and in a much larger list of institutions outside of the city of Chicago which make appointments from the roll of qualified students of the Senior class in Rush Medical College. The occupants of these positions receive their board and lodging, and acquire experience in every department of practical Medicine and Surgery.

For the last three years every graduate who was able and willing to accept an internship has secured such, and it has been impossible to fill a number of vacancies in desirable hospitals.

PRIZES

The Benjamin Rush Prize.—A medal of the value of \$50 is given by the Faculty at each commencement to that member of the graduating class who passes the highest examination in every department of Medicine represented that year in the examination for the degree.

The Daniel Brainard Prize.—A medal is annually given by the Faculty to the student who makes and presents to the College Museum the best accepted dissection in Surgical Anatomy.

The Freer Prizes.—These prizes are derived from the income of a fund presented to the College by the late Nathan M. Freer, of the Board of Trustees, as a memorial of the names of two honored members of his family long identified with the highest interests of this institution.

The J. W. FREER Medal and the sum of \$50 are awarded as a first prize to that member of the Junior or Senior class who presents the best thesis involving original investigation on the part of the student. A second prize of \$25 is awarded to the next successful competitor. The theses must be submitted to the Dean of Students on or before the first of April, 1911.

The L. C. P. FREER Medal and the sum of \$50 are offered as a first prize to that member of the Freshman or Sophomore class who presents the best thesis involving original investigation on the part of the student. A second prize of \$25 will be awarded to the next most successful of the competitors. *This prize will be competed for by students in the medical courses of the University.* The theses must be placed in the hands of the Dean of Students by April, 1911.

The Edward L. Holmes Prize.—In honor of the late Edward L. Holmes, for many years professor of diseases of the eye and ear in Rush Medical College and for several years its president, who during his long career rendered distinguished services to the institution, the Trustees have established the Edward L. Holmes Prize, for original research, to consist of a table and scholarship for one season at the Marine Biological Laboratory at Woods Hole, Mass. This prize is offered in recognition of the great service which is rendered to the medical sciences by research work in biology. The prize will not be offered for 1910-11.

The Henry M. Lyman Prize.—In memory of Henry M. Lyman, who for many years devoted much of his best energies and his unusual ability to the upbuilding of Rush Medical College and who served successively as Professor

of Physiology and Neurology and Professor of Medicine, and who was later Dean of the Faculty, a fund has been created by his children, the proceeds of which, amounting to \$25 a year, will be offered as a prize to the member of the Junior or Senior class who shall present the best thesis on a topic connected with internal medicine. This thesis must include the results of original laboratory or ward work or of personal clinical observation. Before the work is undertaken by the student the head of the Department of Medicine should be consulted as to the choice of subject and other details.

The Howard T. Ricketts Prize.—In memory of Dr. Howard Taylor Ricketts, at one time a member of the Department of Dermatology, who died of typhus fever, while investigating that disease, in the City of Mexico, May 3, 1910, this Department has established a prize in Dermatology. This prize, of the value of twenty-five dollars, will be awarded annually to the student presenting the best thesis embodying the results of original investigation on some topic related to dermatology.

OCCUPANTS OF INTERNESHIPS

The following students have secured internships, by examination and appointment, during the year. The duration of service of these internships varies from one to two years.

- R. H. Smith, Akron City Hospital, Akron, O.
- L. Rees, Central Utah Hospital, Mt. Pleasant, Utah.
- C. C. Tellesen, Chicago Policlinic.
- I. Perrill, Chicago Policlinic.
- J. Gonzalez, Children's Free Hospital, Milwaukee, Wis.
- W. G. McKay, Children's Memorial Hospital.
- R. O. Ritter, Children's Memorial Hospital.
- A. M. Shaw, Children's Memorial Hospital.
- J. E. Mavros, Columbus Hospital.
- F. C. McLean, Cook County Hospital.
- D. D. Todd, Cook County Hospital.
- R. B. Dillehunt, Cook County Hospital.
- C. A. Penman, Cook County Hospital.
- H. Harriet Stevens, Cook County Hospital.
- E. S. Talbot, Jr., Cook County Hospital.
- E. Z. Shapiro, Cook County Hospital.
- F. H. Falls, Cook County Hospital.
- D. P. Abbott, Cook County Hospital.
- J. H. Skiles, Cook County Hospital.
- J. B. Moore, Cook County Hospital.
- M. Clements, Cook County Hospital.
- C. F. Charlton, Cook County Hospital.
- A. C. Pearman, Cook County Hospital.
- J. L. Treacy, Cook County Hospital.
- S. Walker, Cook County Hospital.
- C. E. Smith, Cook County Hospital.
- E. L. Cornell, Cook County Hospital.
- R. B. Fowler, Cook County Hospital.
- C. C. Hickman, Cook County Hospital.
- G. M. Crabb, Cook County Hospital.
- J. G. Strohm, Cook County Hospital.
- J. F. McKie, Cook County Hospital.
- F. H. Hanus, Cook County Hospital.

Martha A. Welpton, Denver City and County Hospital, Denver, Colo.
 Robert Orlando Ritter, German Hospital.
 Emile Reese, German Hospital.
 H. R. Hatch, Holy Cross Hospital, Salt Lake City, Utah.
 R. E. Miltenberger, House of Correction Hospital.
 F. C. Murrah, House of Correction Hospital.
 N. B. Wagner, House of Correction Hospital.
 C. E. Smith, Illinois Eye and Ear Infirmary.
 Sydney Walker, Illinois Eye and Ear Infirmary.
 I. Abadir, Kasr il Ainy Hospital, Cairo, Egypt.
 D. Delap, Kansas City General Hospital, Kansas City, Mo.
 C. D. Enfield, Kansas City General Hospital, Kansas City, Mo.
 F. E. Stanton, Kansas City General Hospital, Kansas City, Mo.
 E. S. Porter, Kansas City General Hospital, Kansas City, Mo.
 C. A. Johnson, Kansas City General Hospital, Kansas City, Mo.
 A. M. Shaw, Kansas City General Hospital, Kansas City, Mo.
 A. Z. Tanner, Latter Day Saints Hospital, Salt Lake City, Utah.
 A. E. Brimmer, Minneapolis City Hospital, Minneapolis, Minn.
 R. T. Gilchrist, Milwaukee County Hospital, Milwaukee, Wis.
 J. E. Lackner, Michael Reese Hospital.
 H. A. Lyding, Michael Reese Hospital.
 J. T. Rooks, Passavant Hospital.
 J. F. Hammond, Presbyterian Hospital.
 J. L. Treacy, Presbyterian Hospital.
 E. S. Edgerton, Presbyterian Hospital.
 J. T. Strawn, Presbyterian Hospital.
 G. G. Steele, Presbyterian Hospital.
 G. H. Twining, Presbyterian Hospital.
 J. G. Ryan, Presbyterian Hospital.
 E. G. Kirk, Presbyterian Hospital.
 A. M. Moody, Presbyterian Hospital.
 F. B. Olentine, St. Anthony's Hospital.
 A. N. Kitenplon, St. Charles Hospital, Aurora, Ill.
 A. B. Bauer, St. Joseph's Hospital.
 A. B. Baugher, St. Luke's Hospital.
 J. E. Ekstrom, St. Luke's Hospital.
 A. N. Aitken, St. Luke's Hospital.
 C. H. Swift, St. Luke's Hospital.
 L. M. Munson, St. Luke's Hospital.
 H. R. Hoffman, St. Luke's Hospital.
 W. H. Jamieson, St. Luke's Hospital.
 G. B. Schwachtgen, St. Luke's Hospital.
 F. O. McFarland, St. Luke's Hospital.
 E. F. Zoerb, St. Mark's Hospital, Salt Lake City, Utah.
 E. P. Moser, St. Mary's Hospital, Rochester, Minn.
 C. F. Hartman, St. Vincent's Hospital, Toledo, O.
 W. W. Peter, St. Vincent's Hospital, Toledo, O.
 R. E. Flynn, St. Francis Hospital, La Crosse, Wis.

FELLOWSHIPS AND SCHOLARSHIPS OF THE UNIVERSITY OF CHICAGO

The Trustees of the University have established the following Fellowships and Scholarships:

1. *The University Fellowships*.—The University appropriates annually twenty-one thousand, five hundred dollars (\$21,500) for Fellowships in the Graduate Schools. These Fellowships are awarded by the Trustees, upon the recommendation of the President and the nomination of Departments, to graduate students

who desire to pursue advanced work in some special line. About seventy Fellowships, ranging in value from \$120, or the tuition fees of a student for three quarters, to \$520, are assigned each year.

2. *Applications for Fellowships.*—Applications for Fellowships should be addressed to the Deans of the Graduate Schools of the University, *and should be in their hands on or before March 1.*

3. *Appointments to Fellowships.*—

a) *Date.*—The annual assignment of Fellowships is made about the first of April. A Fellowship is available for any three of the four quarters of the year, beginning in June following the date of appointment.

b) *Attainments required.*—The candidate must have attained proficiency in some department. In general, he should have spent at least one year in resident study after receiving his Bachelor's degree. In making the appointment, special weight is given to theses indicating the candidate's ability to conduct original investigation.

4. *Special Fellowships.*—In addition to the regular University Fellowships mentioned above, there are special Fellowships offered by individuals. These vary somewhat in number and amount from year to year. At present they are as follows:

a) *The William A. and Fanny C. Talcott Fellowships and Scholarships.*—In 1896 William A. Talcott, of Rockford, Ill., endowed four Fellowships and Scholarships, two of which bear his name and two the name of his widow, Fanny C. Talcott. They are intended primarily for the benefit of graduates of Rockford College, but in the absence of such beneficiaries, may be assigned to others. They pay the tuition fees of those appointed to them.

b) *The Bucknell Fellowship,* yielding \$400, offered by Mr. Charles Miller, of Franklin, Pa., is open to graduates of Bucknell University. The appointment to this Fellowship is made by the faculty of Bucknell University.

c) *The Joseph B. Loewenthal Fellowship in Chemistry,* endowed by Mr. Berthold Loewenthal, of Chicago, as a memorial of his son, Joseph B. Loewenthal. It yields about \$420 to the incumbent annually appointed, and is awarded on the nomination of the Department of Chemistry and the recommendation of the President of the University.

5. *Graduate Scholarships.*—The Scholarships available for students in the Graduate Schools are as follows:

a) *Scholarships for excellence in the work of the Senior Colleges.*—The University offers twenty Scholarships for excellence in the work of the Senior Colleges. The Scholarships are assigned annually, in the Spring Quarter, on the nomination of the Board of the Senior Colleges. Each department of the University, with the approval of the Committee on Scholarships, has the privilege of naming a student who is for that year the honor student of the Senior Colleges in that department, and to this student there is given a Graduate Scholarship yielding in each case a sum equal to the University tuition fees for three quarters (\$120), provided the student continues his studies in the Graduate Schools.

b) *The William A. and Fanny C. Talcott Fellowships and Scholarships.*—See Fellowships.

c) *Affiliation Scholarships.*—Under the conditions of affiliation with Kalamazoo College, Des Moines College, Butler College, and John B. Stetson University, the three students who stand highest in scholarship and general excellence in the graduating class of each institution are awarded Scholarships covering the University tuition fees for three quarters (\$120). This arrangement continues in force until 1910.

d) *Scholarships for Public Speaking.*—Three Scholarships, each yielding the amount of forty dollars (\$40), or the tuition fee for a quarter, are awarded to the winners in the preliminary contests in Public Speaking. In case the winner in a preliminary contest has previously secured a Scholarship in this way in the Graduate Schools, the award is made to the second in rank.

e) *Scholarships for officers.*—Forty Scholarships, each yielding the tuition fees for three quarters (\$120), are assigned annually to members of the Faculties, or wives of members, who may desire to take courses of instruction in the University.

f) *Teachers in affiliated schools.*—Under the conditions of affiliation, teachers in the various Affiliated Schools of the University are assigned vouchers covering the tuition fee. The conditions under which these vouchers may be obtained will be mailed on application.

g) *General Scholarships.*—Forty Scholarships, each yielding the tuition fees for three quarters (\$120), are assigned annually to students in the Graduate Schools on the recommendation of the Deans of these schools.

h) *Medical Scholarships as Prizes for Research.*—In order to encourage the investigative spirit and method among prospective medical students in the list of colleges recognized by the University of Chicago, the University offers three or four prize scholarships in the medical courses for the best theses involving original work in one of the sciences fundamental to medicine: physics, chemistry, or any of the biological branches. Two or three of these are open to undergraduates only, as follows: The first prize scholarship, a sum equal to the tuition for three quarters (\$180); the second scholarship, a sum equal to the tuition for two quarters (\$120); and the third scholarship, a sum equal to the tuition for one quarter (\$60). Students submitting theses in this group must be members of the Senior class of the college which they are attending and must secure the Bachelor's degree from said college and be eligible to enter the Graduate School of the University of Chicago in order to claim the scholarship won.

One prize scholarship, yielding a sum equal to the tuition for three quarters (\$180), for a thesis similar to the above is open only to graduate students in these colleges.

The competition for these prize scholarships in medicine is open only to students in colleges which are in the recognized list of the University of Chicago.

Theses must be in the hands of the Dean of Medical Students, University of Chicago, on or before April 1, 1911. Further particulars in regard to these scholarships may be had on application to the Dean.

These prizes for the session of 1910-11 have been awarded to C. O. Melick, Ohio University, Athens, O.; W. Otis Callaway, University of Colorado, Boulder, Colo.; and Alexander R. Paxton, Miami University, Oxford, O.

MEDICAL SOCIETIES

The fact that a very large number of medical men practice in Chicago has led to the development of a number of medical societies, general and special. Among the more interesting to medical students in the early years of their course is the Chicago Pathological Society. A large number of clinical societies, notably the Chicago Medical Society and its various branches, will interest the student, particularly in the later years of his course.

The University of Chicago Biological Club meets on the second Tuesday evening of each month at the Quadrangle Club at 7:45 sharp. At the meetings of this society the advanced work and original research of the various laboratories will be reported, and topics of general medical and scientific interest will be discussed. The meetings will be open to medical students. The Society holds no meetings during the Summer Quarter.

ALUMNI ASSOCIATION

The Alumni Association of Rush Medical College holds yearly meetings. These meetings, which precede the regular commencement of the College, will occur on June 15, 1910. All graduates of the College in good standing are eligible to membership, which can be obtained by the payment of one dollar, the annual dues. The officers for the year ending July 1, 1910, are as follows:

PRESIDENT—R. L. Leonard, '69, 928 LaSalle St. Chicago, Ill.

FIRST VICE-PRESIDENT—W. Van Werden, '85, Des Moines, Ia.

SECOND VICE-PRESIDENT—J. H. Plecker, '77, Chicago, Ill.

NECROLOGIST—O. S. Ormsby, '95, Chicago, Ill.

TREASURER—Alexander F. Stevenson, '98, 100 State St., Chicago, Ill.

SECRETARY—Alfred N. Murray, '01, 100 State St., Chicago, Ill.

Executive Committee

Frank Cary, '82 *Chairman*, 2935 Indiana Ave., Chicago

David Fiske, '00, Chicago

F. Van Kirk, '01, Chicago

Henry H. Kleinpell, '00, Chicago

F. A. Fisher, '01, Chicago

FELLOWSHIP COMMITTEE

Geo. H. Weaver, '89, *Chairman*, 1628 Washington Blvd., Chicago, Ill.

Geo. D. Swaine, '73, Cleveland, O.

E. C. Hamley, '02, Sprague, Wash.

J. S. Kauffman, '05, Blue Island, Ill.

Geo. W. Baker, '94, Ogden, Utah

Winfield Ackley, '80, Juniata, Neb.

W. A. Foskett, '97, Whitebird, Ida.

L. L. Uhls, '84, Osawatomie, Kan

R. E. Farr, '00, Minneapolis, Minn.

Adolph Moeller, '87, Milwaukee
 A. I. Bouffleur, '87, Chicago, Ill.
 Oliver C. Neier, '90, Indianapolis

P. A. Reppert, '03, Burlington, Ia
 R. C. Robe, '95, Pueblo, Colo.

ALUMNI REUNION COMMITTEE

A. L. Craig, '78, *Chairman*, 4174 Lake Ave., Chicago, Ill.

J. H. Nichols, '96, Mansfield, O.	M. M. Loomis, '90, Omaha, Neb.
F. A. Tucker, '97, Noblesville, Ind.	Geo. A. King, '04, Kansas City, Mo.
E. M. Libby, '98, Iron River, Mich.	R. C. Robe, '95, Pueblo, Colo.
B. M. Caples, '91, Waukesha, Wis.	H. E. Allen, '98, Seattle, Wash.
C. T. Lesan, '97, Mt. Ayr, Ia.	S. S. Smith, '69, Emporium, Pa.
J. W. Chamberlin, '82, St. Paul, Minn.	

ALUMNI RELATIONS COMMITTEE

J. W. Pettit, '84 *Chairman*, Ottawa, Ill.

T. C. Clark, '81, Stillwater, Minn. Thomas A. Crowder, '97, Chicago, Ill.

EDITORIAL BOARD

Alfred N. Murray, '01, *Chairman, ex-officio*, Chicago, Ill.

W. H. Wilder, '84, Chicago, Ill. B. M. Linnell, '93, Chicago, Ill.
 Ruth Tunncliff, '03, Chicago, Ill.

The dues should be sent to the Secretary of the Association, Dr. A. N. Murray, 100 State Street, Chicago.

The Association publishes a small bulletin four times a year. This for the present will be sent to members without extra charge. The Association also supports a Fellow doing research work in residence at the College. Contributions to this fund are solicited.

Alumni are requested to inform the College Recorder, James H. Harper, Rush Medical College, Chicago, of any change of address. They will also confer a favor by sending him a copy of any address, program, or other document, relating to the early history of the College.

GRADUATES FOR THE SESSION OF 1909-10

The Degree of Doctor of Medicine was conferred on the following students at the close of the Summer Quarter, September 3, 1909:

Abadir, Ibrahim	Hartman, Carl Floyd
Breyer, John Henry	Kirk, Edwin Garvey
Brown, Horatio Alford	Newberger, Charles
Davis, Carl H.	Rogers, Harrison Ross
Delap, Darwin	Thomson, John William
Enfield, Charles Darwin	

At the close of the Autumn Quarter, December 20, 1909:

Baughner, Albert Howard	Park, Willard Elizabeth
Garrey, Walter Eugene	Rowe, William Henry, Jr.
Granger, Arthur Stanley	Schott, Charles

At the close of the Winter Quarter, March 16, 1910:

Corkery, John Ripley	Tanner, Alvin Charles
Lamme, Charles Wilson	Todd, David Duke
Penman, Clarence Axtell	Verity, Walter
Smith, Robert Holbrook	

The following will receive the degree at the close of the Spring Quarter,
June 15, 1910:

Crabb, George Melville	Olentine, Fred Blue
Dillehunt, Richard Benjamin	Perrill, Irving
Edgerton, Erastus Smith	Rooks, James Thomas
Gilchrist, Ralph Towns	Seiler, Raymond Alvah
Hammond, Johnson Francis	Shaw, Alfred Marion
Hickman, Clarence Clyde	Smith, Clifford Eben
Lackner, Julius Ernest	Steele, George Heath
Lyding, Harrison Andrew	Strohm, J. Guy
McKie, John Francis	Talbot, Eugene S., Jr.
McLean, Franklin Chambers	Treacy, John Lear
Moore, John Beverly	Twining, Howard Granville
Munson, Louis Manning	Wagner, Nicholas Bacon

Candidates for the degree at the close of the Spring Quarter, 1911:

Abbott, Donald Putnam	Miltenberger, Robert Edgar
Aitken, Arthur Noble	Moody, Adelbert Montague
Bauer, August Harvey	Moser, Edward Parker
Benson, Robert L.	Murrah, Frank Clay
Brimmer, Archie Eli	Pearman, Arthur Columbia
Clements, Melbourne	Peter, William Wesley
Cornell, Edward Lyman	Rees, Lafayette
Crotty, Julia G.	Reimche, Robert Clifton
Falls, Frederick Howard	Ritter, Robert Orlando
Fisher, Ralph Stephen	Rose, Emile
Fowler, Earle Bloodgood	Ryan, John Gaston
Harms, Frank Henry	Schwachtgen, George Banker
Hoffman, Harry Richard	Shapiro, Emanuel Zachary
Jamieson, William Henry	Skiles, James Hubert
Johnson, Clarence Arthur	Stevens, Hirrel Harriet
Kitenplon, Arthur Nuta	Swift, Charles Henry
Lambert, Schuyler Colfax	Walker, Sidney
Mavros, Joannes Elias	Welpton, Martha Anna
McFarland, Fletcher Olin	Zoerb, Edward Franklin
McKay, William George	

MATRICULATES FOR THE SESSION OF 1909-10

The following list includes only those students who were in attendance during one or more quarters, and who were entitled to take the quarterly examinations.

ABBREVIATIONS.—*u.* = University; *c.* = College; *s.* = School; *hs.* = High School; *a.* = Academy; *sm* = Seminary; *inst* = Institute (or Institution)

PERIOD OF RESIDENCE — *s* = Resident during Summer Quarter, 1909; *a* = Resident during Autumn Quarter, 1909; *w* = Resident during Winter Quarter, 1910; *sp* = Resident during Spring Quarter, 1910.

FRESHMAN AND SOPHOMORE CLASSES

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Abelio, George, <i>a w sp</i>	Senior c.	Chicago
Abraham, Vestal Raul, <i>s a w</i>	Senior c.	Forest Grove, Ore.
Aedsworth, Frank John, <i>s</i>	Practitioner	Traverse City, Mich.
Allen, Edgar Mosher, <i>s</i>	A.B. (Ohio State u.) '08	Chillicothe, O.
Allen, Larned van Patten, <i>a w sp</i>	Senior c.	Davenport, Ia.
Anderson, David Ballantyne, <i>a w sp</i>	Senior c.	Salt Lake City, Utah.
Andrews, Benjamin Franklin, <i>s</i>	A.M. (Penn c.) '96	Chicago
Arkin, Aaron, <i>s a</i>	S.B. (u. of Chicago) '09	Chicago
Arkin, Morris L., <i>s</i>	S.B. (u. of Pennsylvania) '06	Chicago
Ashmore, Frank, <i>a w sp</i>	S.B. (Denison u.) '09	Chicago
Bach, Irwin W., <i>a w sp</i>	A.B. (u. of Illinois) '08 A.M. (u. of Illinois) '09	Urbana
Baker, Arthur E., <i>a w</i>	Senior c.	Peoria
Barrow, Albert Lee, <i>a w</i>	u. of Maryland	Abingdon, Va.
Barrow, John Vincent, <i>s</i>	S.B. (u. of Chicago) '09	Campbellhill
Bartlett, Frank K., <i>a w sp</i>	Senior c.	Ogden, Utah
Becht, Frank Christian, <i>s w sp</i>	S.B. (u. of Chicago) '06 Ph.D. (<i>Ibid.</i>) '09	Chicago
Benson, Robert Louis, <i>s</i>	A.B. (u. of Michigan) '02 A.M. (<i>Ibid.</i>) '04	Mt. Morris, Mich
Berkheiser, Elven James, <i>a w sp</i>	A.B. (Lake Forest u.) '09	Sheldon
Bisdorn, Francisco A., <i>s</i>	Senior c.	The Hague, Holland
Black, George DeAlton, <i>w</i>	u. of Wooster	Chicago
Blake, Charles R., <i>a w sp</i>	S.B. (Cornell c.) '09	Mediapolis, Ia.
Bloomfield, Mat, <i>a w sp</i>	S.B. (u. of Chicago) '10	Oklahoma City, Okla.
Bowman, J. Craig, <i>a w sp</i>	Junior c.	Upper Sandusky, O.
Brady, John LeBrun, <i>a w</i>	Senior c.	Keokuk, Ia.
Braun, Samuel Alvin, <i>s a</i>	A.B. (Cumberland u.) '07	Louisville, Ky.
Brennecke, Gerhard Carl, <i>s</i>	S.B. (u. of Wisconsin) '07	Watertown, Wis.
Brooks, Clyde, <i>s a w</i>	A.B. (u. of Missouri) '05	St. Louis, Mo.
Brown, Fitzhugh Lee, <i>s</i>	Senior c.	Ruthville, Va.

Brown, Frederick Irvine, <i>s</i>	M.D. (Rush Medical c.) '90	Chicago
Buckman, Edward, <i>a w sp</i>	Senior c.	Chicago
Buckner, Elkanah M., <i>a w</i>	Junior c.	Courtland, Ont.
Bunce, Allen Hamilton, <i>a w</i>	A.B. (u. of Georgia) '08	Statesboro, Ga.
Burke, Edmund J., <i>a w sp</i>	Junior c.	La Salle
Burkholder, Charles A., <i>a w sp</i>	Junior c.	Chicago
Caldwell, Fred Cornelius, <i>s a w sp</i>	S.B. (u. of Chicago) '09	Chicago
Callantine, Blythe Jackson, <i>s a w</i>	Senior c.	Peru, Ind.
Cameron, Don Franklin, <i>a w sp</i>	A.B. (Indiana u.) '07 A.M. (u. of Chicago) '09	Hamilton, Ind.
Campbell, Mary Rachel, <i>s</i>	Senior c.	Milwaukee, Wis.
Canouse, LeMoyne Kirby, <i>a w</i>	Senior c.	Larue, O.
Carlton, Leland Francis, <i>a w sp</i>	Senior c.	Wauchula, Fla.
Cary, Eugene, <i>a w sp</i>	Junior c.	Chicago
Christoph, Carl Henry, <i>a w sp</i>	Junior c.	Chicago
Clark, Elbert, <i>s</i>	S.B. (u. of Arkansas) '03	Waldo, Ark.
Clarke, James Cunningham, <i>a w sp</i>	A.B. (Monmouth c.) '07	Monmouth
Coleman, George Howell, <i>a w sp</i>	Senior c.	Chicago
Cook, Jesse D., <i>a w</i>	Junior c.	Chicago
Corper, Harry John, <i>s</i>	S.B. (u. of Chicago) '06	Chicago
Cowdry, Edmund Vincent, <i>a</i>	A.B. (u. of Toronto) '09	Chicago
Craig, Helen Frances, <i>a w sp</i>	A.B. (Asheville c. for Women) '01	Asheville, N.C.
Crelly, Harry Carlton, <i>s</i>	u. of Alabama	Mobile, Ala.
Crittenden, Alden L., <i>s</i>	S.B. (Iowa) '07	Humboldt, Ia.
Crouch, Warner L., <i>a w sp</i>	Knox c.	Belle Prairie
Crumpton, Robert C., <i>s</i>	A.B. (Howard c.) '04	Evergreen, Ala.
Dahlgren, Bror Eric, <i>s</i>	u. of Minnesota	Chicago
Dale, Harry Louis, <i>s</i>	A.B. (u. of Oregon) '06	Portland, Ore.
Damon, Mrytle, <i>a</i>	u. of Tennessee	Bowling Green Ky.
Davis, Benjamin Franklin, <i>s a w sp</i>	A.B. (u. of Wisconsin) '07	Chicago
Davis, Nathan Smith, <i>a w sp</i>	Senior c.	Chicago
Dearborn, Walter Fenno, <i>s</i>	A.B. (Wesleyan u.) '00 A.M. (<i>Ibid.</i>) '03 Ph.D. (Columbia u.) '05	Chicago
Deason, John, <i>s</i>	Valparaiso u.	Murphysboro
DeBoth, Edward Raymond, <i>a w</i>	Senior c.	Green Bay, Wis.
DeMotte, Roy James, <i>s a sp</i>	A.B. (u. of Illinois) '03	Chicago
Drennan, Fred Miller, <i>s a w sp</i>	Senior c.	Rathdrum, Idaho
Dunlap, George Wendell, <i>a w sp</i>	Junior c.	Galesburg
Dykstra, Edward John, <i>s</i>	Senior c.	Rochester, N.Y.
Easton, Sidney Harris, <i>a w sp</i>	S.B. (u. of Chicago) '10	Peoria
Emerson, Herbert W., <i>s</i>	S.B. (u. of Michigan) '02	Lawrence, Kan.
Enns, Jacob H., <i>s</i>	A.B. (Fairmount c.) '07	Inman, Kan.
Erbeck, Clara Martha, <i>w sp</i>	A.B. (u. of Wooster) '05	Seattle, Wash.
Eskey, Clifford Rush, <i>a w sp</i>	Junior c.	Tuscola
Fargo, Merchant Charles, <i>s a w sp</i>	A.B. (u. of Nebraska) '07	Hot Springs, S.D.
Ferguson, Ivan H., <i>a</i>	Junior c.	Chicago

Fishbein, Morris, <i>a w sp</i>	Junior c.	Indianapolis, Ind.
Fisher, Arthur H., <i>a w sp</i>	Senior c.	Ottawa
Fisher, Ralph Stephen, <i>s</i>	Leland Stanford Jr. u.	Portland, Ore.
Fjeldstad, Christian Alfred, <i>s</i>	A.B. (Luther c.) '05	Wells, Minn.
	S.B. (u. of Chicago) '09	
Fleming, Samuel Clifton, <i>a w sp</i>	Senior c.	Franklin, Tenn.
Fowler, John Dennison, <i>a w sp</i>	A.B. (u. of Rochester) '08	Rochester, N.Y.
Fox, Paul C., <i>a w sp</i>	Senior c.	Dayton, O.
French, Harley E., <i>s</i>		Vermilion, S.D.
Frizzell, Rex Russell, <i>s</i>	A.B. (Cornell u.) '08	Chicago
Fuller, Harry Burton, <i>s a w sp</i>	S.B. (u. of Chicago) '09	Chicago
Gaarde, Fred William, <i>s a w sp</i>	S.B. (u. of Chicago) '09	Minden, Neb.
Galloway, Milton Blythe, <i>s</i>	S.B. (u. of Chicago) '09	Wakeeney, Kan.
Galloway, Thomas C., <i>a w sp</i>	S.B. (u. of Idaho) '07	Weiser, Idaho
Garabedian, Garabed A. Z., <i>s</i>	Senior c.	Constantinople, Turkey
Garrey, Walter E., <i>s</i>	Ph.D. (u. of Chicago)	Chicago
Ghabriel, Adib Abraham, <i>s</i>	Syrian Protestant c.	Beirut, Syria
Goettsch, Arthur, <i>a w sp</i>	S.B. (u. of Chicago) '09	Davenport, Ia.
Gotham, Charles Lewis, <i>s</i>	S.B. (u. of Chicago) '09	Milwaukee, Wis.
Gould, Lyman Keith, <i>a w sp</i>	Senior c.	Rochester, Ind.
Green, John Rueben, <i>s</i>	A.B. (u. of Iowa) '06	Onslow, Ia.
Greer, James Richard, <i>s</i>	S.B. (u. of Chicago) '06	Chicago
	Ph.D. (<i>Ibid.</i>) '09	
Grulee, Clifford Grosselle, <i>w</i>	Practitioner	Chicago
Guthrie, James McElroy, <i>s</i>	Vanderbilt u.	Whitman, Miss.
Hackett, Martha, <i>s a w sp</i>	A.B. (Western c. for Women)	Ft. Wayne, Ind.
	'07	
Halsey, Richard Charles, <i>a w sp</i>	Senior c.	Chicago
Harley, Elmer, <i>s a w sp</i>	Lewis inst.	Hot Springs, Ark.
Haroldson, Olaf, <i>s a w sp</i>	Senior c.	Northwood, N.D.
Hatton, Edward Howard, <i>s a w sp</i>	B.L. (u. of Wisconsin) '09	Peru
Hayden, Austin A., <i>s</i>	S.B. (u. of Chicago) '02	Chicago
Hecht, D'Orsay, <i>sp</i>		Chicago
von Hess, Charles L., <i>w sp</i>	Senior c.	Sleepy Eye, Minn.
Heumann, John Martin Frederick, <i>s a w sp</i>	S.B. (Grand Island c.) '08	Chicago
Heusinkveld, Henry J., <i>a w sp</i>	A.B. (Hope c.) '09	Fulton
Hewitt, William Francis, <i>a w sp</i>	S.B. (u. of Chicago) '07	Chicago
Hicks, Alfred Charles, <i>s a</i>	S.B. (u. of Chicago) '09	Long Branch, N.J.
Hill, Harold C., <i>a w sp</i>	Senior c.	Chicago
Hobart, Wilson Keith, <i>a w sp</i>	Junior c.	Topeka, Kan.
Hoerber, William Leonard, <i>sp</i>	u. of Illinois	Chicago
Hokanson, Nels Magnus, <i>a</i>	Senior c.	Chicago
Holman, John Hamilton, <i>s</i>	Unclassified	Chicago
Howard, Ralph B., <i>a w sp</i>	Ph.B. (Kalamazoo c.) '06	South Bend, Ind.
Howell, Katherine Myrta, <i>a w sp</i>	A.B. (u. of Chicago) '05	Chicago
Hughes, Herbert, <i>sp</i>	S.B. (u. of Montana) '05	Portland, Ore.
Hughes, John R., <i>a w sp</i>	Senior c.	Waukesha, Wis.

Hurst, Wilbur, <i>a w sp</i>	S.B. (Union Christian c.) '06	Hutsonville
Ives, George, <i>s</i>	A.B. (u. of Wisconsin) '07	Ft. Atkinson, Wis.
Jack, William David, <i>a w sp</i>	Senior c.	Omaha, Neb.
Jacobson, Clara, <i>a w</i>	S.B. (u. of Chicago) '09	Chicago
Jacobson, Conrad, <i>s</i>	Ph.B. (Beloit c.) '06	Chicago
Jamieson, George V., <i>a w sp</i>	Junior c.	Seattle, Wash.
Jenkins, Luther Walker, <i>s</i>	S.B. (u. of Chicago) '09	Paris
Johnson, Floyd Pleasant, <i>a w sp</i>	A.B. (Wabash c.) '09	Crawfordsville, Ind.
Johnson, Thomas Arthur, <i>s</i>	S.B. (u. of Chicago) '09	Malta
Johnston, Ralph Sherwin, <i>a w sp</i>	A.B. (Washburn c.) '08	Topeka, Kan.
Kaupp, Benjamin F., <i>s</i>	S.B. (Colorado Agricultural c.) '99	Ft. Collins, Colo.
Keeton, David Wood, <i>s</i>	S.B. (Millikin u.) '04	Meridian, Miss.
Kock, Waldemar, <i>s</i>	Ph.D. (Harvard u.) '00	St. Louis, Mo.
Koehler, John Peter, <i>s</i>	A.B. (u. of Nebraska) '02	University Park, Colo.
Koerper, Herman William, <i>s a w sp</i>	Senior c.	Mendota
Kofmehl, William John, <i>a w sp</i>	Senior c.	Elgin
Krost, Gerald Nicholas, <i>a w sp</i>	Junior c.	Crown Point, Ind.
Kuhns, Ralph Henry, <i>a w sp</i>	Senior c.	Chicago
Kvello, Olaf A., <i>w sp</i>	Junior c.	Lisbon, N.D.
Langhorst, Frederick Henry, <i>s</i>	Valparaiso u.	El Paso
Lauerman, Archibald William, <i>a w sp</i>	Senior c.	West Bend, Wis.
Leigh, Thomas W. D., <i>a w</i>	Howard u.	Chicago
Lowry, Lawson Gentry, <i>s</i>	A.B. (u. of Missouri) '09	Excelsior Springs, Mo.
Luce, Rey Vincent, <i>a w sp</i>	A.B. (u. of Wisconsin) '09	Chilton, Wis.
Luckhardt, Arno Benedict, <i>s a w sp</i>	S.B. (u. of Chicago) '06	Chicago
Lude, Thomas Beck, <i>s</i>	u. of North Dakota	Lude, Minn.
Lusk, Perry Gilbert, <i>a w sp</i>	Grinnell c.	Watertown, Minn.
Lusky, Herbert O., <i>a w</i>	S.B. (u. of Chicago) '09	Ottawa
Lynn, Clarence Edward, <i>sp</i>	Junior c.	Dubuque, Ia.
Madtson, Martha, <i>a w sp</i>	A.B. (Washburn c.) '05	Beloit, Kan.
Martin, Loyal Maximilian, <i>a w sp</i>	Senior c.	Newkirk, Okla.
Mason, Curtis Eugene, <i>s</i>	Senior c.	Sweet Springs, Mo.
Mathers, George Schrader, <i>a w sp</i>	Senior c.	Prosper, Tex.
Mavros, Joannes Elias, <i>s</i>	A.B. (Egyptian Gov't)	Cairo, Egypt
Maxwell, Charles Thomas, <i>a w sp</i>	S.B. (u. of Chicago) '10	Dakota City, Neb.
McArthur, Selim Walker, <i>a w sp</i>	Ph.B. (Yale u.) '08	Chicago
McCarey, Arthur James, <i>a w sp</i>	Senior c.	Antigo, Wis.
McClellan, John H., <i>s</i>	A.B. (u. of Michigan) '97 A.M. (<i>Ibid.</i>) '99 Ph.D. (Harvard u.) '06	Urbana
McLean, Edwin Philbrook, <i>a w sp</i>	Senior c.	Maroa
McMeel, James Eugene, <i>a w sp</i>	Junior c.	Meade, Kan.
McWhorter, Golder L., <i>a w sp</i>	Senior c.	Burt, Ia.
Merrill, Harry P., <i>a w sp</i>	S.B. (McMinnville c.) '08	Albany, Ore.

Middleton, William Drummond, <i>w sp</i>	Senior c.	Davenport, Ia.
Miles, Lec Monroe, <i>a w</i>	S.B. (Iowa c.) '09	Redfield, S.D.
Miltenberger, Robert Edgar, <i>s</i>	S.B. (u. of Wisconsin) '06	Randolph, Wis.
Mitchell, James Herbert, <i>s a w sp</i>	S.B. (u. of Chicago) '07	Chicago
Molzahn, Edward Theodore, <i>s</i>	Practitioner	Ravenswood, Mo.
Moore, Beveridge Harshaw, <i>s w sp</i>	A.B. (Tarkio c.) '03	Tarkio, Mo.
	S.B. (u. of Chicago) '09	
Moore, Josiah John, <i>s a w sp</i>	S.B. (u. of Montana) '07	Anaconda, Mont.
Moser, Edward Parker, <i>s</i>	u. of Iowa	Eldora, Ia.
Murphy, Elam Turner, <i>a w</i>	A.B. (Wabash c.) '99	Chicago
Mustard, Harry James, <i>a w sp</i>	Senior c.	Montesano, Wash.
Nelson, Charles Frederick, <i>s</i>	S.B. (u. of Chicago) '09	Chicago
Northrup, William, <i>w</i>	Practitioner	Grand Rapids, Mich.
Oftedal, Sverre, <i>s</i>	A.B. (u. of North Dakota) '09	Minneapolis, Minn.
Olds, William Henry, <i>a w sp</i>	S.B. (u. of Chicago) '09	Spokane, Wash.
Otten, F. Ben, <i>a w sp</i>	S.B. (North Dakota Agri. c.) '08	Neche, N.D.
Otten, Harry, <i>s a w sp</i>	Senior c.	Pleasant Plains
Painter, Jesse Carl, <i>s</i>	S.B. (Penn. c.) '07	East Peru, Ia.
Pamment, George Gill, <i>a w sp</i>	S.B. (Adrian c.) '09	Waukegan
Park, Willard Elizabeth, <i>s</i>	u. of Texas	Jacksonville, Tex.
Patrick, Marcia Alice, <i>a w sp</i>	Senior c.	Chicago
Patterson, James, <i>w</i>	S.B. (u. of Chicago) '05	Chicago
Paulus, David, <i>w</i>	Senior c.	Fredonia, Wis.
Pazdrey, Ivan Constantine, <i>a</i>	Ruthenian Gymnasium	Galicia, Austria
Peter, William Wesley, <i>s</i>	Ph.M. (Northwestern c.) '07	Toledo, O.
Petersen, William Ferdinand, <i>s</i> <i>s a w sp</i>	S.B. (u. of Chicago) '09	Chicago
Pfeffinger, Carl Looock, <i>a</i>	Senior c.	Peoria
Phelps, Elmore Wayte, <i>a w sp</i>	S.B. (u. of Chicago) '08	Bay City, Mich.
Phelps, Eugene Talmadge, <i>a w sp</i>	A.B. (u. of Chicago) '08	Hebron, Neb.
Pincoffs, Maurice Charles, <i>a w sp</i>	S.B. (u. of Chicago) '09	Chicago
Place, Benoni Austin, <i>s</i>	A.M. (Ohio u.) '05	Chicago
Rankin, Christopher V., <i>a</i>	Senior c.	Fountain City, Tenn.
Rathbun, Frederick J., <i>a w sp</i>	S.B. (Knox c.) '09	New Windsor
Rathbun, George L., <i>a w sp</i>	S.B. (Knox c.) '08	New Windsor
Reagan, Rezin, <i>s</i>	S.B. (Earlham c.) '08	Rochester, Ind.
Redmon, Andrew Jackson, <i>w</i>	A.B. (Indiana u.) '01	Peru, Ind.
Reeder, Grant Simpson, <i>s</i>	S.B. (Cornell c.) '07	Tipton, Ia.
Reeder, William George, <i>s</i>	Practitioner	Chicago
Renfro, Lilburn Woods, <i>w</i>	u. of Washington	Chicago
Reynolds, Robert Lawrence, <i>s</i>	S.B. (u. of Chicago) '09	Horton, Kan.
Richards, William Allyn, <i>a</i>	S.B. (u. of Wisconsin) '99	Chicago
Rinderspacher, Carl Otto, <i>a w sp</i>	Senior c.	Hastings, Neb.
Roberg, Fred Emanuel, <i>s</i>	S.B. (u. of Chicago) '09	Chicago

Rohr, Frederick William, <i>w sp</i>	Junior c.	Chicago
Rosburg, August Henry, <i>a w sp</i>	A.B. (Iowa State u.) '09	Hinton, Ia.
Ross, Fayette Boyson, <i>a w sp</i>	Junior c.	Akron, Ia.
Schmidt, Karl Herman, <i>s</i>	Senior c.	Chicago
Shaver, Clarence Walter, <i>a</i>	Junior c.	Chicago
Sheldon, Ralph Edward, <i>s</i>	A.B. (Cornell u.) '05 A.M. (Harvard u.) '07 Ph.D. (u. of Chicago) '08	Ithaca, N.Y.
Sherry, Israel, <i>a w sp</i>	Senior c.	Chicago
Sippy, Burne Olin, <i>a w sp</i>	S.B. (Buchtel c.) '09	Akron, O.
Smeltzer, Charles Everitt, <i>s</i>	Senior c.	Iola, Kan.
Smith, Clifford E., <i>s</i>	S.B. (u. of Omaha) '06	Villisca, Ia.
Smith, Louis Daniel, <i>s</i>	S.B. (u. of Chicago) '09	Monroe, La.
Smith, Robert Louis Irvine, <i>a w sp</i>	Senior c.	Hemet, Cal.
Smith, Wallis W., <i>a w sp</i>	S.B. (Drury c.) '08	Marshfield, Mo.
Souter, Carlie Belle, <i>a w sp</i>	Senior c.	Ft. Scott, Kan.
Sprafka, Andrew N., <i>a</i>	Junior c.	Minto, N.D.
Stanley, Court Rogers, <i>s</i>	Junior c.	Chicago
Stanton, Walter S., <i>a w sp</i>	u. of California	Chicago
Steagall, John Roscoe, <i>a w sp</i>	Senior c.	Golconda
Steffen, Lyman Allen, <i>a w sp</i>	Senior c.	Antigo, Wis.
Steiner, Irving William, <i>a w sp</i>	Junior c.	Independence, Wis.
Stephany, Carl, <i>w sp</i>	Junior c.	Milwaukee, Wis.
Stephenson, William Campbell, <i>a</i>	Senior c.	Chicago
Stevens, Herbert Campbell, <i>s</i>	A.B. (u. of Washington) '01 Ph.D. (Cornell u.) '05	Seattle, Wash.
Stewart, Clinton George, <i>s w sp</i>	A.B. (u. of Michigan) '97	Toledo, O.
Strauss, Jerome Frank, <i>a w sp</i>	Senior c.	Chicago
Strick, Edward James, <i>s</i>	A.B. (Hope c.) '03	Hutsonville, Mich.
Sutch, Yorke Breckenridge, <i>a w sp</i>	Junior c.	Chicago
Swackhamer, Chester Ray, <i>w sp</i>	Senior c.	Union, Ore.
Swan, Alfred Helmer, <i>a w</i>	u. of Nebraska	Chicago
Swan, Charles Joseph, <i>s</i>	Practitioner	Evanston
Takahashi, Kenzo, <i>s</i>	Unclassified	Tokio, Japan
Tanner, Alvin Charles, <i>s</i>	S.B. (u. of Chicago) '06	Birch Run, Mich.
Thometz, Harry M. R., <i>s</i>	St. Ignatius c.	Chicago
Thurston, William Eden, <i>a w</i>	Ph.B. (Franklin c.) '09	Shelbyville, Ind.
Timblin, William Stanley, <i>a w sp</i>	Junior c.	Chicago
Torrance, Fred Emerson, <i>a w sp</i>	S.B. (Southwestern c.) '08	Winfield, Kan.
Turner, May, <i>a w</i>	Senior c.	Barboursville, W. Va.
Ullman, Henry Johnson, <i>a w sp</i>	Senior c.	Chicago
Van Nuys, Roscoe Golden, <i>s</i>	A.B. (Oberlin c.) '07	Franklin, Ind.
Vreeland, Clyde Emerson, <i>s</i>	S.B. (u. of Michigan) '09	Richland Center, Wis.
Wagner, Paul Stanislaus, <i>s</i>	Junior c.	Providence, R.I.
Wahlberg, Karl William, <i>s a w sp</i>	A.B. (Augustana c.) '07 S.B. (u. of Chicago) '09	Moline

Wahrer, Frederick Louis, <i>a w sp</i>	Senior c.	Ft. Madison, Ia.
Walker, Herbert, <i>s</i>	Practitioner	Chicago
Washburne, Carleson Wollsey, <i>w sp</i>	Senior c.	Elgin
Watt, Henry Farlin, <i>a w sp</i>	Iowa State c.	Ames, Ia.
Weidling, Walter H., <i>sp</i>	Junior c.	Topeka, Kan.
Wells, Charles Cooper, <i>sp</i>	S.B. (Knox c.) '08	Galva
Welpton, Martha A., <i>s</i>	S.B. (Denver u.) '06	Denver, Colo.
Werner, John Harris, <i>s</i>	S.B. (Valparaiso u.) '99	Chicago
Wernicke, Henry Oscar, <i>s</i>	A.B. (u. of Michigan) '08	Chicago
Wilder, Russell Morse, <i>a w</i>	S.B. (u. of Chicago) '07	Chicago
Williams, John Charles, <i>s</i>	M.D. (Rush Medical c.) '94	Chicago
Wiseley, Allen Newton, <i>s a w</i>	Senior c.	Ada, O.
Woodruff, Rolland Cecil, <i>a w sp</i>	S.B. (Grand Island c.) '09	Walla Walla, Wash.
Woods, Edwin Owen, <i>s</i>	S.B. (u. of Nashville) '06	Evening Shade, Ark.
Yamaguchi, Minsuke, <i>s</i>	A.B. (Lombard c.) '97 A.M. (Yale u.) '00	Tokio, Japan
Zeisler, Erwin Paul, <i>a w sp</i>	A.B. (u. of Chicago) '07	Chicago
Zdraveff, Lazar, <i>a</i>	Syrian Protestant c.	Beirut, Syria.

MEN, 246; WOMEN, 13; TOTAL, 259.

SPECIAL STUDENTS TAKING MEDICAL COURSES

Allen, George Delvin, <i>sp</i>	A.B. (Oberlin c.) '08	Toledo, O.
Appleman, Charles Orville, <i>a w</i>	Ph.B. (Dickinson c.) '08	Galesburg
Bartelmez, George William, <i>w sp</i>	S.B. (New York u.) '06	New York
Bose, Hemendra Nath, <i>s</i>	Ripon c.	Dacea, India
Bunzel, Herbert Horace, <i>a</i>	S.B. (u. of Chicago) '06	Chicago
Caldwell, George H., <i>s</i>	u. of Michigan	Enderlin, N.D.
Cardiff, Ira D., <i>s</i>	S.B. (Knox c.) '97	Topeka, Kan.
Carlisle, Wilbur Glenn, <i>s</i>	A.B. (Ohio Wesleyan u.) '09	Hillsboro, O.
Class, Elva Nichols, <i>a w sp</i>	Unclassified	Chicago
Clevenger, Joseph Franklin, <i>a w</i>	A.B. (Ohio State u.) '03	Wheaton
Cliff, Robert Charles, <i>s a</i>	Unclassified	Park River, N.D.
Dawson, Albert Marcellus, <i>w</i>	A.B. (Washburn c.) '10	North Topeka, Kan.
Currens, Frederick Hawley, <i>s</i>	A.B. (Coe c.) '04 A.M. (<i>Ibid.</i>) '07	Bellevue, Neb.
Dice, Lee Raymond, <i>a sp</i>	Unclassified	Prescott, Wash.
Drennan, Jennie, <i>sp</i>	M.D., C.M. (Greens u.) '95	Kingston, Ont.
Eyerly, Tema LeClerc, <i>s</i>	A.B. (u. of Kansas) '05 A.M. (<i>Ibid.</i>) '09	Nortonville, Kan.
Gallardo, Marcelino Mendoza, <i>a</i>	Unclassified	Philippine Is.
Glerum, Anna Theodora, <i>a w</i>	Junior c.	Buffalo, N.Y.
Gray, Cora Emmeline, <i>w</i>	S.B. (u. of Chicago) '06 S.M. (<i>Ibid.</i>) '09	Chicago
Hannun, Frank Walter, <i>w sp</i>	Junior c.	Bayfield, Wis.
Harrison, Bruce Magill, <i>s</i>	S.B. (Ottawa u.) '05	Ottawa, Kan.
Holmes, Harriet, <i>a w sp</i>	A.B. (Vassar c.) '95	Chicago

Jacobson, Clara, <i>w sp</i>	S.B. (u. of Chicago) '09	Chicago
Kite, George Lester, <i>s</i>	S.B. (u. of Chicago) '08	Graves Mill, Va.
Koch, Fred Conrad, <i>a w sp</i>	S.B. (u. of Illinois) '99	Chicago
	S.M. (<i>Ibid.</i>) '00	
Lang, Francis Frederick, <i>s</i>	Junior c.	Frankfort-on-Main, Germany
Magel, Benjamin Franklin, <i>a</i>	S.B. (Simpson c.) '07	Sidney, Ia.
McCampbell, Eugene Franklin, <i>a</i>	S.B. (u. of Chicago) '06	Chicago
McKibbon, Paul Stilwell, <i>a w sp</i>	S.B. (Denison u.) '06	Granville, O.
McLean, Franklin Chambers, <i>sp</i>	S.B. (u. of Chicago) '07	Maroa
McLeod, Andrew Fridley, <i>s</i>	A.B. (u. of Chicago) '03	Chicago
	Ph.D. (<i>Ibid.</i>) '06	
Mead, Harold, <i>s</i>	A.B. (Yale u.) '07	Farmington, Mo.
Meek, Walter Joseph, <i>s</i>	A.B. (u. of Kansas) '02	Oskaloosa, Ia.
	Ph.D. (u. of Chicago) '09	
Norton, John Foote, <i>s</i>	S.B. (Mass. Inst. of Tech.) '06	Chicago
Owens, William A., <i>a w sp</i>	Junior c.	Oshkosh, Wis.
Perrin, Fleming Allen, <i>w sp</i>	S.B. (u. of Chicago) '09	La Harpe
Pettit, Roswell Talmadge, <i>a w sp</i>	S.B. (u. of Chicago) '08	Ottawa
Phelps, Jessie, <i>s</i>	S.M. (u. of Michigan) '08	Ypsilanti, Mich.
Pope, Donald Irving, <i>sp</i>	A.B. (u. of Nebraska) '98	Fall River, Wis.
Putnam, John Jacob, <i>s</i>	S.B. (u. of Denver) '04	Gibbon, Neb.
Rooks, James Thomas, <i>sp</i>	A.B. (u. of Chicago) '07	Chicago
Rose, Lewis Henry, <i>s</i>	Unclassified	Little Rock, Ark.
Rosenstiel, Max, <i>w</i>	Junior c.	Chicago
Russell, Ada Minnie, <i>s a w sp</i>	Unclassified	Chicago
Sauer, Louis Wendlin, <i>s</i>	A.B. (u. of Cincinnati) '07	Cincinnati, O.
Schmitt, Clara, <i>a</i>	A.B. (u. of Missouri) '05	Lowry City, Mo.
Schoene, William Jay, <i>sp</i>	A. and M. College of Ky.	Henderson, Ky.
Schommer, John Jacob, <i>a w sp</i>	S.B. (u. of Chicago) '09	Chicago
Scott, Ernest Lyman, <i>s sp</i>	S.B. (Ohio Wesleyan u.) '02	Bay City, Mich.
Scott, Wilfred W., <i>s</i>	A.B. (Ohio Wesleyan u.) '07	Sioux City, Ia.
Seymour, Raymond Jesse, <i>s</i>	S.B. (Ohio State u.) '00	Columbus, O.
Slavik, Edward F., <i>sp</i>	Junior c.	Chicago
Spurgeon, Charles Hatton, <i>s</i>	A.B. (Franklin c.) '06	Franklin, Ind.
Steele, Charles Moore, <i>s</i>	S.B. (u. of Chicago) '04	Keokuk, Ia.
Stober, James Palm, <i>s</i>	S.M. (Bucknell u.) '99	Myerstown, Pa.
Talbot, Marion, <i>w</i>	A.B. (Boston u.) '80	Chicago
	A.M. (<i>Ibid.</i>) '82	
Tashiro, Shiro, <i>a w sp</i>	S.B. (u. of Chicago) '09	Japan
Thompson, Robert Albert, <i>w</i>	u. of Wooster	Cleveland, O.
Todd, Clare Chrisman, <i>w</i>	S.B. (Washington State c.) '06	Pullman, Wash.
Tonney, Frederick Oscar, <i>w</i>	A.B. (u. of Chicago) '04	Ft. Scott, Kan.
Vaughan, Roger Throop, <i>sp</i>	Ph.B. (u. of Chicago) '99	Chicago
Vetter, Edwin Francis, <i>s</i>	A.B. (Georgetown u.) '97	Chicago
Vincent, Stella Burnham, <i>sp</i>	S.B. (u. of Chicago) '06	Hampton
Weber, Eugene, <i>sp</i>	Unclassified	
Weld, Emma Skinner, <i>w</i>	Senior c.	Chicago
Whitenton, Robert Oscar, <i>sp</i>	A.B. (u. of Nashville) '06	Humboldt Tenn.

Wilson, James Meredith, <i>sp</i>	Ph.B. (Cornell u.) '80	St. Louis, Mo.
Wolfram, Philip H., <i>a w sp</i>	Junior c.	Chicago
MEN, 56; WOMEN, 13; TOTAL, 69		

JUNIOR CLASS

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Allen, Edgar Mosher, <i>a w sp</i>	A.B. (Ohio State u.) '08	Chillicothe, O.
Arkin, Morris L., <i>a w sp</i>	S.B. (u. of Pennsylvania) '06	Chicago
Avery, Samuel D., <i>a w sp</i>	A.B. (u. of Missouri) '09	Troy, Mo.
Barrow, John Vincent, <i>a w sp</i>	S.B. (u. of Chicago) '09	Chicago
Belgum, Hendrick Nelson, <i>a w sp</i>	S.B. (Marquette u.) '09	Valders, Wis.
Beye, Howard L., <i>a w sp</i>	S.B. (u. of Wisconsin) '09	Oak Park
Bisdom, Frederick Augustus, <i>a w sp</i>	Senior c.	The Hague, Netherlands
Bissell, Wayne William, <i>a w sp</i>	S.B. (u. of Wisconsin) '09	Lodi, Wis.
Blomenkamp, John Henry, <i>a w sp</i>	S.B. (u. of Nebraska) '09	Hastings, Neb.
Bobbitt, James Douglas, <i>a w sp</i>	A.B. (u. of Indiana) '09	Eckerty, Ind.
Boyden, Henry Blakeslee, <i>a w sp</i>	S.B. (u. of Nebraska) '09	Ravenna, Neb.
Crittenden, Alden L., <i>a w sp</i>	S.B. (Iowa c.) '07	Humboldt, Ia.
Crumpton, Robert C., <i>a w sp</i>	A.B. (u. of Chicago) '09	Evergreen, Ala.
Dale, Harry Louis, <i>a w sp</i>	A.B. (u. of Oregon) '06	Portland, Ore.
DeBoth, Edward Raymond, <i>w sp</i>	Senior c.	Green Bay, Wis.
Diederich, Victor P., <i>a w sp</i>	S.B. (u. of Wisconsin) '09	Madison, Wis.
Doolittle, Russell Comber, <i>a w sp</i>	S.B. (Princeton u.) '07	Hopkinton, Ia.
Ellis, John Dayhuff, <i>a w sp</i>	Senior c.	Rensselaer, Ind.
Enns, Jacob H., <i>a w sp</i>	A.B. (Fairmount c.) '07	Inman, Kan.
Eyman, Elmer Vail, <i>a w sp</i>	A.B. (u. of Wisconsin) '07	Evanston
Fjeldstad, Christian Alford, <i>a w sp</i>	A.B. (Luther c.) '05 S.B. (u. of Chicago) '08 S.M. (<i>Ibid.</i>) '09	Wells, Minn.
Forbush, R. Francis, <i>a</i>	A.B. (u. of Utah) '09	Sandy, Utah
Forgrave, Leon Paul, <i>a w sp</i>	A.B. (u. of Missouri) '09	St. Joseph, Mo.
Fortun, Olav Johann, <i>s</i>	Senior c.	Chicago
Frizzell, Rex Russell, <i>a w sp</i>	A.B. (Cornell u.) '08	Chicago
Gallagher, Paul, <i>a w sp</i>	St. Louis u.	El Paso, Tex.
Galloway, Milton Blythe, <i>a w sp</i>	S.B. (u. of Chicago) '09	Wakeeney, Kan.
Gardner, Frank Frederick, <i>a w sp</i>	S.B. (Coe c.) '06	Cedar Rapids, Ia.
Glomset, Daniel J., <i>a w sp</i>	S.B. (u. of Chicago) '09	Fargo, N.D.
Good, Albert Huber, <i>a w sp</i>	A.B. (Lake Forest c.) '06	Danville
Gordon, Burton T., <i>a w sp</i>	u. of Michigan	Ludington, Mich.
Gotham, Charles Lewis, <i>a w sp</i>	S.B. (u. of Chicago) '08	Milwaukee, Wis.
Grandy, Charles Clancy, <i>a w sp</i>	A.B. (u. of Indiana) '08 A.M. (<i>Ibid.</i>) '09	Warsaw, Ind.
Green, John Reuben, <i>a w sp</i>	A.B. (u. of Iowa) '06	Onslow, Ia.
Greer, James Richard, <i>a w sp</i>	S.B. (u. of Chicago) '06 Ph.D. (<i>Ibid.</i>) '09	Chicago
Gunther, Otto, <i>a w sp</i>	S.B. (u. of Wisconsin) '09	Sheboygan, Wis.
Gunther, Theodore John, <i>a w sp</i>	S.B. (u. of Wisconsin) '09	Sheboygan, Wis.
Heller, Nelson Leroy, <i>a w sp</i>	A.B. (u. of Indiana) '09	Pennville, Ind.

Huckin, Franklin Roscoe, <i>s a w sp</i>	A.B. (u. of Illinois) '09	Ogden
Hughes, Herbert, <i>w</i>	S.B. (u. of Montana) '05	Portland, Ore.
Hyde, Ida H., <i>s</i>	A.B. (Cornell u.) '91 Ph.D. (Heidelberg u.) '96	Lawrence, Kan.
Jackson, Dennis Emerson, <i>s</i>	A.B. (Indiana u.) '04	Linton, Ind.
Jenkins, Luther Walker, <i>a w sp</i>	S.B. (u. of Chicago) '09	Paris
Johnson, Thomas Arthur, <i>a w sp</i>	S.B. (u. of Chicago) '09	Malta
Koch, Edward William, <i>a w sp</i>	A.B. (u. of Indiana) '08 A.M. (<i>Ibid.</i>) '09	Lawrenceburg, Ind.
Koch, Waldemar, <i>a</i>	S.B. (Harvard u.) '98 Ph.D. (<i>Ibid.</i>) '00	Chicago
Laird, Delbert Harrison, <i>a w sp</i>	S.B. (u. of Chicago) '09	Otterbein, Ind.
Latchem, Raymond Lee, <i>a w sp</i>	S.B. (u. of Chicago) '09	Washington, Ia.
Leonard, Alonzo N., <i>s a w</i>	u. of Utah	Salt Lake City, Utah
Lewinsky, Philip, <i>a w sp</i>	S.B. (u. of Chicago) '09	Chicago
Markel, Ivan James, <i>a w sp</i>	A.B. (u. of Indiana) '09	Elkart, Ind.
Mason, Curtis Eugene, <i>a w sp</i>	S.B. (u. of Chicago) '09	Sweet Springs, Mo.
McAuliff, George, <i>a w sp</i>	A.B. (Yale u.) '07	Chicago
McCloskey, Richard Clyde, <i>a</i>	S.B. (u. of Chicago) '07	Chicago
McLaurin, Archibald A., <i>a w sp</i>	A.B. (Huron c.) '07	Midland, S.D.
Metz, Arthur R., <i>a w sp</i>	A.B. (u. of Indiana) '09	So. Whitley, Ind.
Miller, Frederick Frenny, <i>a w sp</i>	u. of Michigan	Peoria
Morwitz, Samuel Mordecai, <i>a w sp</i>	S.B. (u. of Chicago) '09	Chicago
Nelson, Charles Frederick, <i>a w sp</i>	Senior c.	Chicago
Newby, Harley D., <i>a w sp</i>	A.B. (u. of South Dakota) '07	Parker, S.D.
Oftedal, Sverre, <i>a w sp</i>	A.B. (u. of North Dakota) '09	Minneapolis, Minn.
Parmelee, Arthur Harley, <i>a w sp</i>	A.B. (Beloit c.) '05	West Salem, Wis.
Patterson, James, <i>sp</i>	S.B. (u. of Chicago) '05	Chicago
Reeder, Grant Simpson, <i>a w sp</i>	S.B. (Cornell c.) '07	Tipton, Ia.
Reynolds, Robert Lawrence, <i>a w sp</i>	Senior c.	Horton, Kan.
Riker, S. Leah, <i>a w sp</i>	S.B. (Highland Park c.) '04	Boone, Ia.
Roberg, Fred Emanuel, <i>a w sp</i>	Senior c.	Chicago
Sanders, Audley, <i>a w sp</i>	Drake u.	Sheridan, Mo.
Schott, Harry Johnson, <i>a w sp</i>	Senior c.	Sioux City, Ia.
Simms, John Shaffer, <i>a w sp</i>	A.B. (u. of Nebraska) '09	Alma, Neb.
Slyfield, Forrest Foster, <i>a w sp</i>	S.B. (u. of Wisconsin) '09	Sheboygan, Wis.
Smith, Louis Daniel, <i>a w sp</i>	S.B. (u. of Chicago) '09	Monroe, La.
Smith, William Bowman, <i>a w sp</i>	Senior c.	Oakland, Cal.
Spencer, Robert Dorwin, <i>a w sp</i>	S.B. (u. of Chicago) '09	Piqua, O.
Sprafka, John Joseph, <i>a w sp</i>	S.B. (u. of Chicago) '09	Minto, N.D.
Stangl, Philip Edward, <i>a w sp</i>	Junior c.	St. Cloud, Minn.
Stanley, Court Rogers, <i>a w sp</i>	Junior c.	Chicago
Stark, Oswald George, <i>s a w sp</i>	S.B. (u. of Chicago) '08	Davenport, Ia.
Stoland, Iver, <i>a w sp</i>	A.B. (u. of South Dakota) '09	Vermilion, S.D.
Tanner, Alfonzo Z., <i>s a w sp</i>	A.B. (u. of Utah) '08	Clover, Utah
Terrell, Ted Allen, <i>a</i>	u. of Missouri	Oklmulgee, Okla.

Theobald, Walter Henry, <i>a w sp</i>	Junior c.	Oconomowoc, Wis.
Thometz, Harry M., <i>a w sp</i>	A.B. (St. Ignatius c.) '07	Chicago
Uhl, Earl Lawrence, <i>a w sp</i>	S.B. (u. of Chicago) '09	Baldwin, Kan.
Van de Erve, John, <i>a w sp</i>	A.B. (Hope c.) '95 A.M. (Princeton u.) '97 B.D. (<i>Ibid.</i>) '99	Libertyville
Van Nuys, Roscoe Golden, <i>a w sp</i>	A.B. (Oberlin c.) '07	Franklin, Ind.
Vreeland, Clyde Emerson, <i>a w sp</i>	A.B. (u. of Michigan) '09	Richland Center, Wis.
Wagner, Paul Stanislaus, <i>a w sp</i>	Junior c.	Providence, R.I.
Wentzel, Walter Leonard, <i>a w sp</i>	S.B. (u. of Chicago) '08	Oshkosh, Wis.
Wernicke, Henry Oscar, <i>a w sp</i>	A.B. (u. of Michigan) '08	Chicago
Williams, Frank Lee, <i>a w sp</i>	u. of Missouri	Columbia, Mo.
Wilson Henry Isbell, <i>w sp</i>	A.B. (u. of Kansas) '09	Lawrence, Kan.

SENIOR CLASS

Abadir, Ibrahim, <i>s</i>	A.B. (Assiout c.) '	Assiout, Egypt
Abbott, Donald Putnam, <i>s a w sp</i>	S.B. (u. of Chicago) '07	Chicago
Aitken, Arthur Noble, <i>s a w sp</i>	Senior c.	Harvey
Bauer, August Harry, <i>a w sp</i>	Ph.G. (u. of Illinois) '03 S.B. (u. of Illinois) '08	Chicago
Baugher, Albert Howard, <i>s a</i>	A.B. (u. of Missouri) '08	Bucklin, Mo.
Benson, Robert Louis, <i>a w sp</i>	A.B. (u. of Michigan) '02 A.M. (<i>Ibid.</i>) '04	Mt. Morris, Mich.
Brimmer, Archie Eli, <i>a w sp</i>	S.B. (u. of Minnesota) '07	St. Paul, Minn.
Brown, Horatio Alford, <i>s</i>	A.B. (u. of Wooster), '02	Wooster, O.
Charlton, Cecil F., <i>w sp</i>	S.B. (u. of Nebraska) '08	Lincoln, Neb.
Clements, Melbourne, <i>a w sp</i>	S.B. (u. of Chicago) '08	Nashville, Tenn.
Cornell, Edward Lyman, <i>s a w sp</i>	S.B. (u. of Chicago) '07	Chicago
Crabb, George Melville, <i>s a w</i>	S.B. (Grinnell c.) '06	Parsons, Kan.
Crotty, Julia, <i>s a w sp</i>	A.B. (Wells c.) '08	Crotty, Kan.
Davis, Carl H., <i>s</i>	A.B. (u. of Oregon) '05 S.B. (u. of Chicago) '06	Eugene, Ore.
Dawson, Albert Marcellus, <i>sp</i>	A.B. (Washburn c.) '10	Topeka, Kan.
Delap, Darwin, <i>s</i>	A.B. (u. of Wisconsin) '06	Kansas City, Mo.
Dillehunt, Richard Benjamin, <i>s a w</i>	u. of Illinois	Decatur
Edgerton, Erastus Smith, <i>s a w</i>	S.B. (Knox c.) '05	Galesburg
Enfield, Charles Darwin, <i>s</i>	Senior c. (u. of Chicago)	Jefferson, Ia.
Falls, Frederick Howard, <i>s a w sp</i>	S.B. (u. of Chicago) '09	Chicago
Fisher, Ralph Stephen, <i>w sp</i>		Portland, Ore.
Flynn, Robert E., <i>a w sp</i>	u. of Minnesota	Caledonia, Minn.
Fowler, Earle Bloodgood, <i>s a w sp</i>	S.B. (Dartmouth c.) '07	Oak Park
Garry, Walter Eugene, <i>s a</i>	Ph.D. (Cooper Medical c.)	San Francisco, Cal.
Gilchrist, Ralph Towns, <i>s a w</i>	S.B. (Penn c.) '06	Oskaloosa, Ia.
Granger, Arthur Stanley, <i>a</i>	A.B. (u. of Cincinnati) '02	Los Angeles, Cal.
Hammond, John Francis, <i>s a w</i>	S.B. (u. of Chicago) '07	Coshocton, O.
Harms, Franz Heinrich, <i>s a w sp</i>	Ph.B. (u. of Chicago) '08	Chicago
Hartman, Carl Floyd, <i>s</i>	A.B. (u. of Michigan) '07	Wauseon, O.
Hatch, Henry Ray, <i>a w sp</i>	A.B. (u. of Utah) '08	Heber City, Utah

Hickman, Clarence Clyde, <i>s a w</i>	u. of Nebraska	Lincoln, Neb.
Hoffman, Harry Richard, <i>a w sp</i>	S.B. (u. of Chicago) '08	Chicago
Jamieson, William Henry, <i>s a w sp</i>	L.B. (u. of Wisconsin) '01	Shullsburg, Wis.
Johnson, Clarence Arthur, <i>s a w sp</i>	A.B. (Washburn c.) '06	Topeka, Kan.
Kirk, Edwin Garvey, <i>s</i>	S.B. (u. of Chicago) '03	Lima, O.
	Ph.D. (<i>Ibid.</i>) '07	
Kitenplon, Arthur Nuta, <i>s a w sp</i>	Dearborn Medical c.	Chicago
Lackner, Julius Ernest, <i>s a w</i>	S.B. (u. of Chicago) '07	Chicago
Lambert, Schuyler Colfax, <i>a w sp</i>	A.B. (u. of Nebraska) '06	Lincoln, Neb.
Lamme, Charles Wilson, <i>s a w</i>	A.B., A.M. (u. of Chicago) '07	Parkville, Mo.
Ludé, Thor Bech, <i>a w sp</i>	u. of North Dakota	Ludé, Minn.
Lyding, Harrison Andrew, <i>s a w</i>	S.B. (u. of Chicago) '08	Peoria
McFarland, Fletcher Olin, <i>s a w sp</i>	S.B. (u. of Chicago) '08	Danville
McKay, William George, <i>s a w sp</i>	S.M. (Iowa State c.) '06	Evanston
McKie, John Francis, <i>s a w</i>	S.B. (Tarkio c.) '06	Northboro, Ia.
McLean, Franklin Chambers, <i>s a w</i>	S.B. (u. of Chicago) '07	Maroa
Mavros, Joannes Elias, <i>a w sp</i>	A.B. (Egyptian Gov't) '06	Cairo, Egypt
Mills, Herbert Russell, <i>w sp</i>	S.B. (Cornell c.) '06	Mt. Vernon, Ia.
Miltenberger, Robert Edgar, <i>a w sp</i>	S.B. (u. of Wisconsin) '06	Randolph, Wis.
Moody, Adelbert Montague, <i>a w sp</i>	S.B. (u. of Chicago) '08	The Dalles, Ore.
Moore, John Beverly, <i>s a w</i>	A.B. (u. of Illinois) '08	Benton
Moser, Edward Parker, <i>a w sp</i>	u. of Iowa	Eldora, Ia.
Munson, Louis Manning, <i>s a w</i>	u. of Chicago	Mendota
Murrah, Frank Clay, <i>a w sp</i>	S.B. (u. of Chicago) '08	Creal Springs
Newberger, Charles, <i>s</i>	S.B. (u. of Chicago) '06	Chicago
Olentine, Fred Blue, <i>s a w</i>	Oklahoma Agricultural c.	Muskogee, Okla.
Park, Willard Elizabeth, <i>a</i>	u. of Texas	Jacksonville, Tex.
Pearman, Arthur Columbia, <i>s a w sp</i>	A.B. (u. of Illinois) '08	Champaign
Penman, Clarence Axtell, <i>s a w</i>	A.B. (u. of Michigan) '07	Beaumont, Tex.
Perrill, Irving, <i>s a w</i>	S.B. (u. of Chicago) '09	Chicago
Peter, William Wesley, <i>a w sp</i>	Ph.M. (Northwestern c.) '07	Toledo, O.
Place, Benoni Austin, <i>a w sp</i>	A.M. (Ohio u.) '05	Qualey, O.
Rees, Lafayette, <i>a w sp</i>	A.B. (u. of Utah) '08	Wales, Utah
Reimche, Robert Clifton, <i>a w sp</i>	S.B. (u. of Nebraska) '08	College View, Neb.
Ritter, Robert Orlando, <i>s a w sp</i>	A.B. (u. of Indiana) '08	Orleans, Ind.
Rogers, Harrison Ross, <i>s</i>	S.B. (u. of Chicago) '08	Newell, Ia.
Rooks, James Thomas, <i>s a w</i>	A.B. (u. of Chicago) '07	Chicago
Rose, Emile, <i>s a w sp</i>	A.B. (u. of Colorado) '08	Chicago
Ryan, John Gaston, <i>a w sp</i>	S.B. (u. of Chicago) '07	Pella, Ia.
Schwachtgen, George Banker, <i>s a w sp</i>	Junior c.	Oak Park
Seiler, Raymond Alvah, <i>s a w</i>	Junior c.	Clinton, Ia.
Shapiro, Emanuel Zachary, <i>s a w sp</i>	S.B. (u. of Chicago) '08	Eveleth, Minn.
Shaw, Alfred Marion, <i>s a w</i>	S.B. (Ohio Northern u.) '01	Macon, O.
Skiles, James Hubert, <i>s a w sp</i>	A.B. (u. of Michigan) '07	Chicago
Smith, Clifford E., <i>s a w</i>	S.B. (u. of Omaha) '06	Villisca, Ia.
Smith, Robert Holbrook, <i>a w</i>	A.B. (Dartmouth c.) '02	St. Johnsbury, Vt.
Spurgin, Arthur Cecil, <i>a sp</i>	S.B. (Penn. c.) '07	Oskaloosa, Ia.

Stanton, Frank Everett, <i>s</i>	S.B. (Iowa c.) '06	Humboldt, Ia.
Stark, Oswald George, <i>s a w sp</i>	S.B. (u. of Chicago) '08	Davenport, Ia.
Steele, George Heath, <i>s a w sp</i>	A.B. (u. of Indiana) '08	Indianapolis, Ind.
Stevens, Hirrel Harriet, <i>a w sp</i>	A.B. (Washington u.) '06	St. Louis, Mo.
Strohm, J. Guy, <i>s a w</i>	u. of Nebraska	Fairbury, Neb.
Swift, Charles Henry, <i>a w sp</i>	A.B. (u. of Chicago) '03	Chicago
	S.B. (<i>Ibid.</i>) '05	
Talbot, Eugene Solomon, Jr., <i>s a w</i>	A.B. (Harvard u.) '06	Chicago
Tanner, Alonzo Z., <i>s a w sp</i>	A.B. (u. of Utah) '08	Clover, Utah
Tanner, Alvin Charles, <i>a w</i>	S.B. (u. of Chicago) '06	Birch Run, Mich
Todd, David Duke, <i>s a w</i>	S.B. (Coe c.) '05	Ida Grove, Ia.
	S.M. (u. of Chicago) '08	
Treacy, John Lear, <i>s a w</i>	Senior c.	Helena, Mont.
Twining, Granville Howard, <i>s a w</i>	A.M. (Northwestern u.) '06	Iowa City, Ia.
Wagner, Nicholas Bacon, <i>s a w</i>	Ph.B. (u. of Wisconsin) '06	Menasha, Wis.
Walker, Sydney, <i>s a w sp</i>	S.B. (u. of Chicago) '08	Chicago
Webster, Harry Elgin, <i>s a w sp</i>	u. of Chicago	Dixon
Welpton, Martha Anna, <i>a w sp</i>	S.B. (Denver u.) '06	Denver, Colo.
Whipple, Eleanor Elizabeth, <i>sp</i>	S.B. (u. of Chicago) '07	Chicago
Zoerb, Edward Franklin, <i>a w sp</i>	S.B. (u. of Minnesota) '07	Algoma, Wis.

SUMMARY

Freshmen and Sophomores, including special students	328
Juniors	91
Seniors	95
	514
Post-graduate and special students	107
Total less 37 duplicates	584

1870		1871	
Jan 1	100.00	Jan 1	100.00
Feb 1	100.00	Feb 1	100.00
Mar 1	100.00	Mar 1	100.00
Apr 1	100.00	Apr 1	100.00
May 1	100.00	May 1	100.00
Jun 1	100.00	Jun 1	100.00
Jul 1	100.00	Jul 1	100.00
Aug 1	100.00	Aug 1	100.00
Sep 1	100.00	Sep 1	100.00
Oct 1	100.00	Oct 1	100.00
Nov 1	100.00	Nov 1	100.00
Dec 1	100.00	Dec 1	100.00
Jan 2	100.00	Jan 2	100.00
Feb 2	100.00	Feb 2	100.00
Mar 2	100.00	Mar 2	100.00
Apr 2	100.00	Apr 2	100.00
May 2	100.00	May 2	100.00
Jun 2	100.00	Jun 2	100.00
Jul 2	100.00	Jul 2	100.00
Aug 2	100.00	Aug 2	100.00
Sep 2	100.00	Sep 2	100.00
Oct 2	100.00	Oct 2	100.00
Nov 2	100.00	Nov 2	100.00
Dec 2	100.00	Dec 2	100.00

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